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ABSTRACT

This report represents one aspect of the development of a competency-based, interdisciplinary cooperative program called Project SAVE (Special And Vocational Education). It focuses on Phase I, which, using a taxonomic approach, analyzed prior research and development efforts directed at implementing competency-based personnel preparation programs. The four-page narrative describes the background and rationale and summarizes the nine-step procedure used to analyze fourteen studies related to training vocational and special educators to work with the mainstreamed mildly handicapped and 1233 competency statements involved. Appendix A presents data descriptive of the distribution of competencies within the developed taxonomy for each study and for the total pool of competencies across the fourteen studies. These charts show frequency and percentage of competencies across the taxonomy consisting of two dimensions: twelve role function categories (instructional/planning, coordination, basic educational foundations/preparation, implementing instruction, evaluation and assessment, administration and supervision, counseling and guidance, collaboration and liaison, record keeping and accountability, classroom management, public relations, extracurricular activities), and three levels of specificity (general, intermediate, and specific). Coding scope notes are included in appendix B. The list of competencies, organized by the study and indexed to the taxonomy, is presented in the ninety-page Appendix C. (YLB)

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A Taxonomy of Professional Education Competencies
Related to the Vocational Education of Special Needs Students
Phase I: Analysis of Prior Competency Studies

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Abstract

A Taxonomy of Professional Education Competencies Related to the Vocational Education of Special Needs Students

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The purpose of this paper is to describe the rationale and procedures, by precept and example, for using a taxonomic approach to the synthesis of research and development efforts directed at implementing competency based personnel preparation programs. Step-by-step procedures and guidelines, with examples from an analysis of 14 studies (1,233 competency statements) relevant to training vocational and special educators to work with the mainstreamed, are presented.

Preface

This report represents an aspect of the development of a competency-based, interdisciplinary cooperative program called Project SAVE (Special And Vocational Education).

Project SAVE is an effort at Kent State University, funded by the Personnel Preparation Branch of the Office of Special Education, U. S. Department of Education (OE G008001399), focused upon the in-service needs of vocational and special educators involved in the career and vocational education of the handicapped. This support and that of Kent State's Vocational Education Department, C. W. Nichols, Chairman, and the Special Education Department, P. L. Safford, Chairman, is gratefully acknowledged.

A summary of this report was presented at the annual meeting of the Eastern Educational Research Association, Philadelphia, March 12, 1981.

Jacques H. Robinson
Kent, Ohio
May, 1981

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A Taxonomy of Professional Education Competencies

Related to the Vocational Education of Special Needs Students

The purpose of this presentation is to describe the rationale and the procedures for using a taxonomic approach to the synthesis of Research and Development (R&D) efforts directed toward implementing Competency Based Personnel Preparation (CBPP) programs and to describe the results of one such analysis.

Background and Rationale

Schneider (1973) has outlined the Competency Based Teacher Education (CBTE) movement in the United States and suggested that the basic ideas that provide the focus for CBTE are:

- 1) A sharper focus on objectives;
- 2) Individualization of the responsibility for learning;
- 3) More attention to individual differences;
- 4) Individual assessment and feedback;
- 5) More effective integration of theory and practice;
- 6) Evaluation focuses not only on what the learner knows, but how he performs;
- 7) The changing role of the teacher from dispenser of knowledge to enabler of learning; and
- 8) Satisfaction with preparation of program for both student and teacher.

Phelps, Evans, Abbas and Frison (1976) cite Elam's five elements of CBTE:

- 1) Competencies are role derived, stated behaviorally and public.
- 2) Assessment criteria are competency based, public and specify mastery levels.
- 3) Assessment accounts for knowledge but stresses performance.
- 4) Progress depends upon competency.
- 5) An instructional program facilitates the development and evaluation of specific competencies.

As Clark and Evans (1976) point out, CBTE "has had perhaps a greater emphasis in vocational and special teacher education than in any other educational disciplines" (p. 1:9). The advantages of the CBTE approach are as valid for other educational disciplines and so this needs to be explained. Special education and vocational education share a number of common features. Both special and vocational education offer focal and discrete training to small groups of students and must communicate esoteric information to other educators and to the community. Both have had generous federal support to assist in supplying the resources needed for the extensive efforts required to develop and implement a CBPP program. However, other fields have also received considerable support (elementary education is an example).

It is suggested that CBTE has failed in those areas wherein a relatively abstract synthesis is required to relate the overall structure and thrust of the curriculum to a broadly defined target population. The operational clarity of the CBTE approach has been purchased, in general, at the price of being left with an unwieldy and unorganized corpus of competency statements which are difficult to describe, summarize and synthesize. This interferes with efficient communication, the development of program thrusts, and leads to a tendency to deal with intrinsic academic and conceptual "turf" problems by using a "word game" which involves adding subordinate clauses in qualification of behavioral objectives. Finally, the number and complexity of statements often yields a "conceptual inertia" which defies synthesis. Thus, subsequent workers either ignore prior work or do a "cut and paste" editing job.

Competency R & D efforts vary widely in the degree of structure imposed upon a competency statement from a conceptual and/or linguistic perspective. Highly structured efforts offer coherence at the price of flexibility, diversity, and creativity. Non-structured programs, particularly prevalent field-based efforts, tend to lack clarity, organization and generality.

Competency research also presents problems with respect to statistical treatment. Generally, rankings and percentage data serve to describe empirical results with chi squares and multiple "t" tests used for inferential purposes. Summary is often offered by enumerating "typical" competencies. Thus, it is difficult to summarize and synthesize a single study. When confronted with a need to conduct a synthesis of many such studies, the task is complex and tedious. It is suggested that a taxonomic approach is a feasible alternative to deal with these problems.

The taxonomic approach can be used either to (a) analyze prior work or (b) organize a new development effort. While these are not incompatible they should not be confused, as the structure needed to demonstrate the features of prior efforts may not be well suited to the needs of the program to be designed.

The present effort was designed to analyze prior work. The need for the analysis came out of Kent State's attempt, funded by the Office of Special Education, HEW, to develop, on the basis from input from the field, a cost effective competency-based interdisciplinary (Vocational Education, Special Education and Rehabilitation Counseling) preservice training program for those involved in the career and vocational education and rehabilitation of the handicapped and disadvantaged. A fundamental assumption underlying this effort was that there are core competencies needed by all personnel concerned and that there are clusters and sub-clusters of competencies shared by personnel in various role functions (see Figure 1).

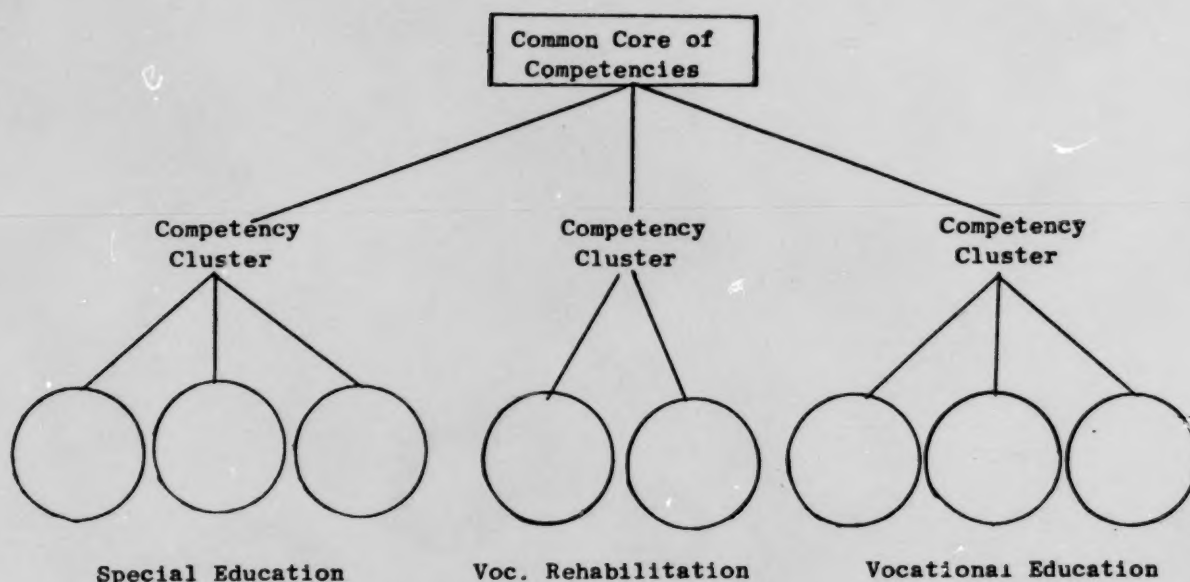


Figure 1

As we did not wish to be parochial or to re-invent the wheel, we surveyed the prior literature. We found that no one had done our work for us; particularly as it related to our interdisciplinary approach. Many competencies were so specific they were irrelevant. Some were so general as to be meaningless and/or meant different things to people within and across the disciplines and role functions involved. We could not simply collate and rewrite the prior competencies and we could not be sure that prior workers had "touched all bases". Neither could we (1) get feedback from faculty and field-based personnel on thousands of specific competencies nor (2) get agreement upon a synthesis of them through more general statements and on interdisciplinary priorities. Further, no statistical association procedures were applicable, and a taxonomic approach was seen as the only feasible approach.

It became clear that a taxonomic structure that would deal with the complexity and diversity of prior research could not handle our program development needs in a cost effective way. Therefore, we decided to use a very general taxonomy for structuring the work of prior studies and a more structured and specific taxonomy to guide the rewriting or initial development of competency statements to be used in our program (Phase I). This latter taxonomy also had to be responsive to parameters which are being used to redesign all of teacher education at Kent State and throughout the State of Ohio (Phase II).

This report focuses on Phase I and upon the vocational and special education of the mildly handicapped rather than vocational rehabilitation and the vocational preparation and supervision of more severely handicapped individuals.

Phase I: Analysis of Prior Competency Studies

Summary of Procedures

The following is a summary to steps used to conduct the taxonomic analysis of prior competency studies.

These procedures were employed in a study of 14 studies related to the vocational education of the handicapped and which involved over 1,233 competency statements.

- Step 1. The universe of studies and/or competency statements to be analyzed was determined.
- Step 2. A tentative structure was developed. The two dimensions employed in the Kent State University study (see Appendices) involved:
 - (a) 12 role functions, and
 - (b) 3 levels of specificity.
- Step 3. The tentative structure was piloted (across several studies) and revised.
- Step 4. Provision for the use of intra-dimension union and intersection coding options to deal with clarity problems and competencies which "cross" the taxonomic structure and require multiple classification within a dimension was made.
- Step 5. Classification coding scope notes were developed.
- Step 6. The coders were trained.
- Step 7. The competencies in each study were classified according to each dimension separately.
- Step 8. The frequency and percentage of competencies in each classification for each study in a "density matrix" was summarized (see Appendix A).
- Step 9. The data across the studies was pooled.

Data descriptive of the distribution of competencies within the taxonomy for each study and for the total pool of competencies across the 14 studies is presented in Appendix A.

Coding scope notes are included in Appendix B

The list of the competencies, organized by the parent study, and indexed to the taxonomy is presented in Appendix C.

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- Clark, G. M. & Evans, R. N. Preparing Vocational and Special Education Personnel to Work with Special Needs Students: A State of the Art. In Abbas, E. K. and Sitlington (Eds.) Issues in the preparation of personnel for the vocational programming of special needs students: Synopses of selected material. University of Illinois, 1976.
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Appendix A

Summaries of the Distribution of Competency Statements

Appendix A

Grand Totals of the Summary of the Distribution Across the Taxonomy of Competency Statements

Level	Category	Instructional Planning	Coordination	Basic Education	Implementing Instruction	Evaluation and Assessment	Administration & Supervision	Counseling & Guidance	Collaboration & Liaison	Record Keeping & Accountability	Classroom Management	Public Relations	Extra-Curricular Tasks & Activ.	Total	Union (2)	Union (3)	Total Unions	Grand Total
		IP	Co	BE	II	EA	AS	CG	CL	RA	CM	PR	EX					
General	n	4	4	1	1	1	5	6	1	1	3	7	0	50	15	7	22	72
	%	.3	.3	.1	.1	1.4	.4	.5	.1	.1	.2	.6	0	4.0	1.2	.6	1.8	5.8
Intermediate	n	67	17	9	25	72	32	18	8	1	10	16	5	280	71	14	85	365
	%	5.4	1.4	.7	2.0	5.8	2.6	1.4	.6	.1	.8	1.3	.4	22.7	5.8	1.1	6.9	29.6
Specific	n	66	32	35	54	73	94	47	60	23	40	13	5	542	93	11	104	646
	%	5.4	2.6	2.8	4.4	5.9	7.6	3.8	4.9	1.9	3.2	1.0	.4	44.0	7.5	.9	8.4	52.4
Sub-total	n	137	53	45	80	162	131	71	69	25	53	36	10	872	179	32	211	1083
	%	11.1	4.3	3.6	6.5	13.1	10.6	5.8	5.6	2.0	4.3	2.9	.8	70.7	14.5	2.6	17.1	87.8
General/Intermediate	n	2	2	4	0	6	2	2	1	0	1	0	0	20	6	2	8	28
	%	.2	.2	.3	0	.5	.2	.2	.1	0	.1	0	0	1.6	.5	.2	.6	2.3
Intermediate/Specific	n	15	5	6	16	21	12	11	0	1	1	0	0	88	29	2	31	119
	%	1.2	.4	.5	1.3	1.7	1.0	.9	0	.1	.1	0	0	7.1	2.4	.2	2.6	9.7
General/Specific	n	0	0	0	1	0	1	0	0	0	1	0	0	3	0	0	0	3
	%	0	0	0	.1	0	.1	0	0	0	.1	0	0	.2	0	0	0	.2
Sub-total Unions	n	17	7	10	17	27	15	13	1	1	3	0	0	111	35	4	39	150
	%	1.4	.6	.8	1.4	2.2	1.2	1.0	.1	.1	.2	0	0	9.0	2.8	.3	3.2	12.2
Grand Total	n	154	60	55	97	189	146	84	70	26	56	36	10	983	214	36	250	1233
	%	12.5	4.9	4.5	7.9	15.3	11.8	6.8	5.7	2.1	4.5	2.9	.8	79.7	17.4	2.9	20.3	

Appendix A

Summary of the Distribution Across the Taxonomy of Competency Statements Employed in the Kent State Vocational/Special Education Competency Studies

Level	Category	Instructional Planning	Coordination	Basic Education	Implementing Instruction	Evaluation and Assessment	Administration & Supervision	Counseling & Guidance	Collaboration & Liaison	Record Keeping & Accountability	Classroom Management	Public Relations	Extra-Curricular Tasks & Activ.	Total	Union (2)	Union (3)	Total Unions	Grand Total
		IP	Co	BF	II	EA	AS	CG	CL	RA	CM	PR	EX					
General	n	2	2	0	0	1	0	1	0	1	1	2	0	10	3	0	3	13
	%	1.4	1.4	0	0	.7	0	.7	0	.7	1	1.4	0	7.3	2.2	0	2.2	9.5
Intermediate	n	10	4	0	4	20	4	1	1	1	0	2	1	48	14	1	15	63
	%	7.3	2.9	0	2.9	14.6	2.9	.7	.7	.7	0	1.4	.7	35.0	10.2	.7	10.9	46.0
Specific	n	4	4	0	1	2	7	8	6	2	3	1	0	38	5	2	7	45
	%	2.9	2.9	0	.7	1.4	5.1	5.8	4.4	1.4	2.2	.7	0	27.7	3.6	1.4	5.1	32.8
Sub-total	n	16	10	0	5	23	11	10	7	4	4	5	1	96	22	3	25	121
	%	11.7	7.3	0	8.6	16.8	8.0	7.3	5.1	2.9	2.9	3.6	.7	70.1	16.0	2.2	18.2	88.3
General/Intermediate	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intermediate/Specific	n	1	0	0	0	7	1	3	0	0	0	0	0	12	2	1	3	15
	%	.7	0	0	0	5.1	.7	2.2	0	0	0	0	0	8.8	1.4	.7	2.2	10.9
General/Specific	n	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1
	%	0	0	0	.7	0	0	0	0	0	0	0	0	.7	0	0	0	0.7
Sub-total Unions	n	1	0	0	1	7	1	3	0	0	0	0	0	13	2	1	3	16
	%	.7	0	0	.7	5.1	.7	2.2	0	0	0	0	0	9.5	1.4	.7	2.2	11.7
Grand Total	n	17	10	0	6	30	12	13	7	4	4	5	1	109	24	4	28	137
	%	12.4	7.3	0	4.4	21.9	8.8	9.5	5.1	2.9	2.9	3.6	.7	79.6	17.5	2.9	20.4	

Appendix A

Summary of the Distribution Across the Taxonomy of Competency Statements Employed in the Sheppard Competency Study

Level	Category	Instructional Planning Coordination Basic Education Implementing Instruction Evaluation and Assessment Administration & Supervision Counseling & Guidance Collaboration & Liaison Record Keeping & Accountability Classroom Management Public Relations Extra-Curricular Tasks & Activ.												Total	Union (2)	Union (3)	Total Unions	Grand Total
		IP	Co	BF	II	EA	AS	CG	CL	RA	CM	PR	EX					
General	n	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1
	%	0	0	0	0	6.7	0	0	0	0	0	0	0	6.7	0	0	0	6.7
Intermediate	n	1	0	1	0	3	0	0	1	0	1	0	0	7	1	1	2	9
	%	6.7	0	6.7	0	20.0	0	0	6.7	0	6.7	0	0	46.7	6.7	6.7	13.3	60.0
Specific	n	1	0	0	0	0	0	0	1	0	0	0	0	2	0	0	0	2
	%	6.7	0	0	0	0	0	0	6.7	0	0	0	0	13.3	0	0	0	13.3
Sub-total	n	2	0	1	0	4	0	0	2	0	1	0	0	10	1	1	2	12
	%	13.3	0	6.7	0	26.7	0	0	13.3	0	6.7	0	0	66.7	6.7	6.7	13.3	80.0
General/Intermediate	n	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
	%	0	0	0	0	0	0	0	0	0	0	0	0	0	6.7	0	6.7	6.7
Intermediate/Specific	n	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	1	2
	%	0	0	0	0	0	0	6.7	0	0	0	0	0	6.7	6.7	0	6.7	13.3
General/Specific	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total Unions	n	0	0	0	0	0	0	1	0	0	0	0	0	1	2	0	2	3
	%	0	0	0	0	0	0	6.7	0	0	0	0	0	6.7	13.3	0	13.3	20.0
Grand Total	n	2	0	1	0	4	0	1	2	0	1	0	0	11	3	1	4	15
	%	13.3	0	6.7	0	26.7	0	6.7	13.3	0	6.7	0	0	73.3	20.0	6.7	26.7	

Appendix A

Summary of the Distribution Across the Taxonomy of Competency Statements
Employed in the Yanok, Green, Lawson, and Von Fischer Competency Study

Level	Category	Instructional Planning	Coordination	Basic Education	Implementing Instruction	Evaluation and Assessment	Administration & Supervision	Counseling & Guidance	Collaboration & Liaison	Record Keeping & Accountability	Classroom Management	Public Relations	Extra-Curricular Tasks & Activ.	Total	Union (2)	Union (3)	Total Unions	Grand Total
		IP	Co	BF	II	EA	AS	CG	CL	RA	CM	PR	EX					
General	n	0	0	0	0	2	1	0	0	0	0	1	0	4	0	1	1	5
	%	0	0	0	0	1.0	0.5	0	0	0	0	.5	0	2.1	0	.5	.5	2.6
Intermediate	n	2	0	0	0	4	14	2	3	0	0	0	0	25	5	2	7	32
	%	1.0	0	0	0	2.1	7.3	1.0	1.6	0	0	0	0	13.0	2.6	1.0	3.6	16.7
Specific	n	6	0	0	3	19	45	8	31	5	1	2	0	120	15	1	16	136
	%	3.1	0	0	1.6	9.9	23.4	4.2	16.1	2.6	.5	1.0	0	62.5	7.8	.5	8.3	70.8
Sub-total	n	8	0	0	3	25	60	10	34	5	1	3	0	149	20	4	24	173
	%	4.2	0	0	1.6	13.0	31.2	5.2	17.7	2.6	0.5	1.6	0	77.6	10.4	2.1	12.5	90.1
General/Intermediate	n	0	0	0	0	1	1	0	0	0	0	0	0	2	1	0	1	3
	%	0	0	0	0	.5	.5	0	0	0	0	0	0	1.0	0.5	0	0.5	1.6
Intermediate/Specific	n	1	0	0	0	3	3	3	0	0	0	0	0	10	5	0	5	15
	%	0.5	0	0	0	1.6	1.6	1.6	0	0	0	0	0	5.2	2.6	0	2.6	7.8
General/Specific	n	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	1
	%	0	0	0	0	0	.5	0	0	0	0	0	0	0.5	0	0	0	0.5
Sub-total Unions	n	1	0	0	0	4	5	3	0	0	0	0	0	13	6	0	6	19
	%	0.5	0	0	0	2.1	2.6	1.6	0	0	0	0	0	6.8	3.1	0	3.1	9.9
Grand Total	n	9	0	0	3	29	65	13	34	5	1	3	0	162	26	4	30	192
	%	4.7	0	0	1.6	15.1	33.8	6.8	17.7	2.6	.5	1.6	0	84.4	13.5	2.1	15.6	

Appendix A

Summary of the Distribution Across the Taxonomy of Competency Statements
Employed in the Andreyka, Blank and Clark Industrial Arts Competency Study

Level	Category	Instructional Planning	Coordination	Basic Education	Implementing Instruction	Evaluation and Assessment	Administration & Supervision	Counseling & Guidance	Collaboration & Liaison	Record Keeping & Accountability	Classroom Management	Public Relations	Extra-Curricular Tasks & Activ.	Total	Union (2)	Union (3)	Total Unions	Grand Total
		IP	Co	BE	II	EA	AS	CG	CL	RA	CM	PR	EX					
General	n	0	0	0	0	2	0	0	0	0	0	0	0	2	2	2	4	6
	%	0	0	0	0	3.3	0	0	0	0	0	0	0	3.3	3.3	3.3	6.6	9.8
Intermediate	n	3	2	0	3	1	1	1	0	0	1	0	0	12	5	1	6	18
	%	4.9	3.3	0	4.9	1.6	1.6	1.6	0	0	1.6	0	0	19.7	8.2	1.6	9.8	29.5
Specific	n	1	0	0	14	0	2	0	0	4	6	0	0	27	3	0	3	30
	%	1.6	0	0	23.0	0	3.3	0	0	6.6	9.8	0	0	44.3	4.9	0	4.9	49.2
Sub-total	n	4	2	0	17	3	3	1	0	4	7	0	0	41	10	3	13	54
	%	6.6	3.3	0	27.9	4.9	4.9	1.6	0	6.6	11.5	0	0	67.2	16.4	4.9	21.3	88.5
General/Intermediate	n	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
	%	0	0	0	0	0	0	0	0	0	0	0	0	0	1.6	0	1.6	1.6
Intermediate/Specific	n	0	0	1	1	0	1	0	0	0	0	0	0	3	2	0	2	5
	%	0	0	1.6	1.6	0	1.6	0	0	0	0	0	0	4.9	3.3	0	3.3	8.2
General/Specific	n	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1
	%	0	0	0	0	0	0	0	0	0	1.6	0	0	1.6	0	0	0	1.6
Sub-total Unions	n	0	0	1	1	0	1	0	0	0	1	0	0	4	3	0	3	7
	%	0	0	1.6	1.6	0	1.6	0	0	0	1.6	0	0	6.6	4.9	0	4.9	11.5
Grand Total	n	4	2	1	18	3	4	1	0	4	8	0	0	45	13	3	16	61
	%	6.6	3.3	1.6	29.5	4.9	6.6	1.6	0	6.6	13.1	0	0	73.8	21.3	4.9	26.2	

Appendix A

Summary of the Distribution Across the Taxonomy of Competency Statements Employed in the Brock Competency Study

Level	Category	Instructional Planning	Coordination	Basic Education	Implementing Instruction	Evaluation and Assessment	Administration & Supervision	Counseling & Guidance	Collaboration & Liaison	Record Keeping & Accountability	Classroom Management	Public Relations	Extra-Curricular Tasks & Activ.	Total	Union (2)	Union (3)	Total Unions	Grand Total
		IP	Co	BF	II	EA	AS	CG	CL	RA	CM	PR	EX					
General	n	1	0	0	1	0	0	0	0	0	0	0	0	2	1	0	1	3
	%	2.7	0	0	2.7	0	0	0	0	0	0	0	0	5.4	2.7	0	2.7	8.1
Intermediate	n	2	1	0	4	3	1	0	0	0	1	0	0	12	2	1	3	15
	%	5.4	2.7	0	10.8	8.1	2.7	0	0	0	2.7	0	0	32.4	5.4	2.7	8.1	40.5
Specific	n	0	2	0	2	1	0	1	0	0	1	0	0	7	0	0	0	7
	%	0	5.4	0	5.4	2.7	0	2.7	0	0	2.7	0	0	18.9	0	0	0	18.9
Sub-total	n	3	3	0	7	4	1	1	0	0	2	0	0	21	3	1	4	25
	%	8.1	8.1	0	18.9	10.8	2.7	2.7	0	0	5.4	0	0	56.8	8.1	2.7	10.8	67.6
General/Intermediate	n	1	0	0	0	0	0	1	0	0	0	0	0	2	0	0	0	2
	%	2.7	0	0	0	0	0	2.7	0	0	0	0	0	5.4	0	0	0	5.4
Intermediate/Specific	n	0	0	0	7	1	0	1	0	0	0	0	0	9	1	0	1	10
	%	0	0	0	18.9	2.7	0	2.7	0	0	0	0	0	24.3	2.7	0	2.7	27.0
General/Specific	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total Unions	n	1	0	0	7	1	0	1	0	0	0	0	0	11	1	0	1	12
	%	2.7	0	0	18.9	2.7	0	2.7	0	0	0	0	0	29.7	2.7	0	2.7	32.4
Grand Total	n	4	3	0	14	5	1	3	0	0	2	0	0	32	4	1	5	37
	%	10.8	8.1	0	37.8	13.5	2.7	8.1	0	0	5.4	0	0	86.5	10.8	2.7	13.5	

Appendix A

Summary of the Distribution Across the Taxonomy of Competency Statements
Employed in the Andreyka, Blank, and Clark Handicapped Component Competency Study

Level	Category	Instructional Planning	Coordination	Basic Education	Implementing Instruction	Evaluation and Assessment	Administration & Supervision	Counseling & Guidance	Collaboration & Liaison	Record Keeping & Accountability	Classroom Management	Public Relations	Extra-Curricular Tasks & Activ.	Total	Union (2)	Union (3)	Total Unions	Grand Total
		IP	Co	BF	II	EA	AS	CG	CL	RA	CM	PR	EX					
General	n	0	0	0	0	0	1	0	0	0	0	1	0	2	2	2	4	6
	%	0	0	0	0	0	1.6	0	0	0	0	1.6	0	3.3	3.3	3.3	6.6	9.8
Intermediate	n	3	1	0	0	2	0	3	0	0	1	1	2	13	9	0	9	22
	%	4.9	1.6	0	0	3.3	0	4.9	0	0	1.6	1.6	3.3	21.3	14.8	0	14.8	36.1
Specific	n	1	0	0	3	3	1	4	1	1	1	1	0	16	3	1	4	20
	%	1.6	0	0	4.9	4.9	1.6	6.6	1.6	1.6	1.6	1.6	0	26.2	4.9	1.6	6.6	32.8
Sub-total	n	4	1	0	3	5	2	7	1	1	2	3	2	31	14	3	17	48
	%	6.6	1.6	0	4.7	8.2	3.3	11.5	1.6	1.6	3.3	4.9	3.3	50.8	23.0	4.9	27.9	78.7
General/Intermediate	n	0	0	0	0	2	0	1	0	0	0	0	0	3	1	1	2	5
	%	0	0	0	0	3.3	0	1.6	0	0	0	0	0	4.9	1.6	1.6	3.3	8.2
Intermediate/Specific	n	0	0	0	1	0	2	0	0	0	0	0	0	3	3	2	5	8
	%	0	0	0	1.6	0	3.3	0	0	0	0	0	0	4.9	4.9	3.3	8.2	13.1
General/Specific	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total Unions	n	0	0	0	1	2	2	1	0	0	0	0	0	6	4	3	7	13
	%	0	0	0	1.6	3.3	3.3	1.6	0	0	0	0	0	9.8	6.6	4.9	11.5	21.3
Grand Total	n	4	1	0	4	7	4	8	1	1	2	3	2	37	18	6	24	61
	%	6.6	1.6	0	6.6	11.5	6.6	13.1	1.6	1.6	3.3	4.9	3.3	60.7	29.5	9.8	39.3	

Appendix A

Summary of the Distribution Across the Taxonomy of Competency Statements
Employed in the Nelson, Johnson, and Frank Competency Study

Level	Category	Instructional Planning	Coordination	Basic Education	Implementing Instruction	Evaluation and Assessment	Administration & Supervision	Counseling & Guidance	Collaboration & Liaison	Record Keeping & Accountability	Classroom Management	Public Relations	Extra-Curricular Tasks & Activ.	Total	Union (2)	Union (3)	Total Unions	Grand Total
		IP	Co	BE	II	EA	AS	CG	CL	RA	CM	PR	EX					
General	n	0	0	0	0	1	1	0	0	0	0	0	0	2	0	1	1	3
	%	0	0	0	0	1.5	1.5	0	0	0	0	0	0	3.1	0	1.5	1.5	4.6
Intermediate	n	6	2	0	0	3	3	3	1	0	0	1	1	20	5	0	5	25
	%	9.2	3.1	0	0	4.6	4.6	4.6	1.5	0	0	1.5	1.5	30.8	7.7	0	7.7	38.5
Specific	n	4	1	3	4	4	2	1	2	0	2	0	0	23	2	2	4	27
	%	6.2	1.5	4.6	6.2	6.2	3.1	1.5	3.1	0	3.1	0	0	35.4	3.1	3.1	6.2	41.5
Sub-total	n	10	3	3	4	8	6	4	3	0	2	1	1	45	7	3	10	55
	%	15.4	4.6	4.6	6.2	12.3	9.2	6.2	4.6	0	3.1	1.5	1.5	69.2	10.8	4.6	15.4	84.6
General/Intermediate	n	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1
	%	0	0	0	0	1.5	0	0	0	0	0	0	0	1.5	0	0	0	1.5
Intermediate/Specific	n	1	1	0	1	2	1	1	0	0	0	0	0	7	2	0	2	9
	%	1.5	1.5	0	1.5	3.1	1.5	1.5	0	0	0	0	0	10.8	3.1	0	3.1	13.9
General/Specific	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total Unions	n	1	1	0	1	3	1	1	0	0	0	0	0	8	2	0	2	10
	%	1.5	1.5	0	1.5	4.6	1.5	1.5	0	0	0	0	0	12.3	3.1	0	3.1	15.4
Grand Total	n	11	4	3	5	11	7	5	3	0	2	1	1	53	9	3	12	65
	%	16.9	6.2	4.6	7.7	16.9	10.8	7.7	4.6	0	3.1	1.5	1.5	81.5	13.9	4.6	18.5	

Appendix A

Summary of the Distribution Across the Taxonomy of Competency Statements Employed in the Brolin and Brolin Competency Study

Level	Category	Instructional Planning	Coordination	Basic Education	Implementing Instruction	Evaluation and Assessment	Administration & Supervision	Counseling & Guidance	Collaboration & Liaison	Record Keeping & Accountability	Classroom Management	Public Relations	Extra-Curricular Tasks & Activ.	Total	Union (2)	Union (3)	Total Unions	Grand Total
		IP	Co	BE	II	EA	AS	CG	CL	RA	CM	PR	EX					
General	n	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
	%	0	0	0	0	0	0	0	0	0	0	0	0	0	4.0	0	4.0	4.0
Intermediate	n	1	0	0	1	2	0	0	0	0	0	0	0	4	0	0	0	4
	%	4.0	0	0	4.0	8.0	0	0	0	0	0	0	0	16.0	0	0	0	16.0
Specific	n	0	0	11	0	2	1	0	1	0	0	0	0	15	2	1	3	18
	%	0	0	44.0	0	8.0	4.0	0	4.0	0	0	0	0	60.0	8.0	4.0	12.0	72.0
Sub-total	n	1	0	11	1	4	1	0	1	0	0	0	0	19	3	1	4	23
	%	4.0	0	44.0	4.0	16.0	4.0	0	4.0	0	0	0	0	76.0	12.0	4.0	16.0	92.00
General/Intermediate	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intermediate/Specific	n	0	0	1	0	0	0	0	0	0	0	0	0	1	1	0	1	2
	%	0	0	4.0	0	0	0	0	0	0	0	0	0	4.0	4.0	0	4.0	8.0
General/Specific	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total Unions	n	0	0	1	0	0	0	0	0	0	0	0	0	1	1	0	1	2
	%	0	0	4.0	0	0	0	0	0	0	0	0	0	4.0	4.0	0	4.0	8.0
Grand Total	n	1	0	12	1	4	1	0	1	0	0	0	0	20	4	1	5	25
	%	4.0	0	48.0	4.0	16.0	4.0	0	4.0	0	0	0	0	80.0	16.0	4.0	20.0	

Appendix A

Summary of the Distribution Across the Taxonomy of Competency Statements
Employed in the Griffin, Clellan, Pynn, Smith, and Adamson Competency Study

Level	Category	Instructional Planning	Coordination	Basic Education	Implementing Instruction	Evaluation and Assessment	Administration & Supervision	Counseling & Guidance	Collaboration & Liaison	Record Keeping & Accountability	Classroom Management	Public Relations	Extra-Curricular Tasks & Activ.	Total	Union (2)	Union (3)	Total Unions	Grand Total
		IP	Co	BF	II	EA	AS	CG	CL	RA	CM	PR	EX					
General	n	1	0	0	0	1	0	2	0	0	0	3	0	7	0	0	0	7
	%	.4	0	0	0	.4	0	.8	0	0	0	1.2	0	2.8	0	0	0	2.8
Intermediate	n	19	2	0	7	13	1	5	0	0	2	2	1	52	16	1	17	69
	%	7.6	0.8	0	2.8	5.2	.4	2.0	0	0	.8	.8	.4	20.8	6.4	.4	6.8	27.6
Specific	n	19	3	6	11	20	12	17	7	6	16	5	0	122	19	1	20	142
	%	7.6	1.2	2.4	4.4	8.0	4.8	6.8	2.8	2.4	6.4	2.0	0	48.8	7.6	.4	8.0	56.8
Sub-total	n	39	5	6	18	34	13	24	7	6	18	10	1	181	35	2	37	218
	%	15.6	2.0	2.4	7.2	13.6	5.2	9.6	2.8	2.4	7.2	4.0	.4	72.4	14.0	.8	14.8	87.2
General/Intermediate	n	1	0	0	0	1	0	1	0	0	0	0	0	3	1	1	2	5
	%	.4	0	0	0	.4	0	.4	0	0	0	0	0	1.2	.4	.4	.8	2.0
Intermediate/Specific	n	8	0	0	5	3	0	3	0	0	1	0	0	20	7	0	7	27
	%	3.2	0	0	2.0	1.2	0	1.2	0	0	.4	0	0	8.0	2.8	0	2.8	10.8
General/Specific	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total Unions	n	9	0	0	5	4	0	4	0	0	1	0	0	23	8	1	9	32
	%	3.6	0	0	2.0	1.6	0	1.6	0	0	.4	0	0	9.2	3.2	.4	3.6	12.8
Grand Total	n	48	5	6	23	38	13	28	7	6	19	10	1	204	43	3	46	250
	%	19.2	2.0	2.4	9.2	15.2	5.2	11.2	2.8	2.4	7.6	4.0	.4	81.6	17.2	1.2	18.4	

Appendix A

Summary of the Distribution Across the Taxonomy of Competency Statements from the North Carolina Division of Vocational Education Studies

Level	Category	Instructional Planning	Coordination	Basic Education	Implementing Instruction	Evaluation and Assessment	Administration & Supervision	Counseling & Guidance	Collaboration	Record Keeping & Accountability	Classroom Management	Public Relations	Extra-Curricular Tasks & Activ.	Total	Union (2)	Union (3)	Total Unions	Grand Total
		IP	Co	BE	II	EA	AS	CG	CL	RA	CM	PR	EX					
General	n	1	1	1	0	3	0	0	0	0	0	0	0	6	2	0	2	8
	%	2.6	2.6	2.6	0	7.7	0	0	0	0	0	0	0	15.4	5.1	0	5.1	20.5
Intermediate	n	4	0	0	0	5	2	0	0	0	0	0	0	11	2	0	2	13
	%	10.3	0	0	0	12.3	5.1	0	0	0	0	0	0	28.2	5.1	0	5.1	33.3
Specific	n	1	0	4	0	3	2	3	0	0	0	0	0	13	1	0	1	14
	%	2.6	0	10.3	0	7.7	5.1	7.7	0	0	0	0	0	33.3	2.6	0	2.6	35.9
Sub-total	n	6	1	5	0	11	4	3	0	0	0	0	0	30	5	0	5	35
	%	15.4	2.6	12.8	0	28.2	10.3	7.7	0	0	0	0	0	76.9	12.8	0	12.8	89.7
General/Intermediate	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intermediate/Specific	n	0	0	0	0	2	0	0	0	1	0	0	0	3	1	0	1	4
	%	0	0	0	0	5.1	0	0	0	2.6	0	0	0	7.7	2.6	0	2.6	10.3
General/Specific	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total Unions	n	0	0	0	0	2	0	0	0	1	0	0	0	3	1	0	1	4
	%	0	0	0	0	5.1	0	0	0	2.6	0	0	0	7.7	2.6	0	2.6	10.3
Grand Total	n	6	1	5	0	13	4	3	0	1	0	0	0	33	6	0	6	39
	%	15.4	2.6	12.8	0	33.3	10.3	7.7	0	2.6	0	0	0	84.6	15.4	0	15.4	

Appendix A

Summary of the Distribution Across the Taxonomy of Competency Statements Employed in the Phelps Competency Study

Level	Category	Instructional planning	Coordination	Basic Education	Implementing Instruction	Evaluation and Assessment	Administration & Supervision	Counseling & Guidance	Collaboration & Liaison	Record Keeping & Accountability	Classroom Management	Public Relations	Extracurricular Tasks & Activ.	Total	Union (2)	Union (3)	Total Unions	Grand Total
		IP	Co	BE	II	EA	AS	CG	CL	RA	CM	PR	EX					
General	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intermediate	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Specific	n	0	0	0	15	1	1	1	0	0	2	0	0	20	9	1	10	30
	%	0	0	0	50.0	3.3	3.3	3.3	0	0	6.7	0	0	66.7	30.0	3.3	33.3	100
Sub-total	n	0	0	0	15	1	1	1	0	0	2	0	0	20	9	1	10	30
	%	0	0	0	50.0	3.3	3.3	3.3	0	0	6.7	0	0	66.7	30.0	3.3	33.3	100
General/Intermediate	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intermediate/Specific	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
General/Specific	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total Unions	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	%																	
Grand Total	n	0	0	0	15	1	1	1	0	0	2	0	0	20	9	1	10	30
	%	0	0	0	50.0	3.3	3.3	3.3	0	0	6.7	0	0	66.7	30.0	3.3	33.3	

Appendix A

Summary of the Distribution Across the Taxonomy of Competency Statements
Employed in the Phelps, Evans, Abkas, and Frison Competency Study

Level	Category	Instructional Planning	Coordination	Basic Education	Implementing Instruction	Evaluation and Assessment	Administration & Supervision	Counseling & Guidance	Collaboration & Liaison	Record Keeping & Accountability	Classroom Management	Public Relations	Extra-Curricular Tasks & Activ.	Total	Union (2)	Union (3)	Total Unions	Grand Total
		IP	Co	BF	II	EA	AS	CG	CL	RA	CM	PR	EX					
General	n	0	0	0	0	1	0	2	0	0	0	0	0	3	1	0	1	4
	%	0	0	0	0	2.1	0	4.2	0	0	0	0	0	6.3	2.1	0	2.1	8.3
Intermediate	n	5	2	0	1	9	1	1	0	0	1	0	0	20	3	3	6	26
	%	10.4	4.2	0	2.1	18.7	2.1	2.1	0	0	2.1	0	0	41.7	6.3	6.3	12.5	54.2
Specific	n	4	1	0	0	2	0	0	1	0	1	0	0	9	4	1	5	14
	%	8.3	2.1	0	0	4.2	0	0	2.1	0	2.1	0	0	18.7	8.3	2.1	10.4	29.2
Sub-total	n	9	3	0	1	12	1	3	1	0	2	0	0	32	8	4	12	44
	%	18.7	6.3	0	2.1	25.0	2.1	6.3	2.1	0	4.2	0	0	66.7	16.7	8.3	25.0	91.7
General/Intermediate	n	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
	%	0	4.2	0	0	0	0	0	0	0	0	0	0	4.2	0	0	0	4.2
Intermediate/Specific	n	1	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
	%	2.1	2.1	0	0	0	0	0	0	0	0	0	0	4.2	0	0	0	4.2
General/Specific	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total Unions	n	1	3	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4
	%	2.1	6.3	0	0	0	0	0	0	0	0	0	0	8.3	0	0	0	8.3
Grand Total	n	10	6	0	1	12	1	3	1	0	2	0	0	36	8	4	12	48
	%	20.8	12.5	0	2.1	25.0	2.1	6.3	2.1	0	4.2	0	0	75.0	16.7	8.3	25.0	

Appendix A

Summary of the Distribution Across the Taxonomy of Competency Statements Employed in the Krupp, Hritz, and Thrower Competency Study

Level	Category	Instructional Planning	Coordination	Basic Education	Implementing Instruction	Evaluation and Assessment	Administration & Supervision	Counseling & Guidance	Collaboration & Liaison	Record Keeping & Accountability	Classroom Management	Public Relations	Extra-Curricular Tasks & Activ.	Total	Union (2)	Union (3)	Total Unions	Grand Total
		IP	Co	BF	II	EA	AS	CG	CL	RA	CM	PR	EX					
General	n	1	1	0	0	4	2	1	1	0	2	0	0	12	3	1	4	16
	%	.3	.3	0	0	1.3	.7	.3	.3	0	.7	0	0	4.0	1.0	.3	1.3	5.3
Intermediate	n	11	3	8	5	9	5	4	2	0	3	10	1	61	11	4	15	76
	%	3.7	1.0	2.7	1.7	3.0	1.7	1.3	.7	0	1.0	3.3	.3	20.3	3.7	1.3	5.0	25.3
Specific	n	26	22	11	4	16	23	11	11	5	8	5	5	147	31	1	32	179
	%	8.6	7.3	3.7	1.3	5.3	7.6	3.7	3.7	1.7	2.7	1.7	1.7	48.8	10.3	.3	10.6	59.4
Sub-total	n	38	26	19	9	29	30	16	14	5	13	15	6	220	45	6	51	271
	%	12.6	8.6	6.3	3.0	9.6	10.0	5.3	4.7	1.7	4.3	5.0	2.0	73.1	15.0	2.0	16.9	90.0
General/Intermediate	n	0	0	4	0	1	1	0	1	0	1	0	0	8	0	0	0	8
	%	0	0	1.3	0	.3	.3	0	.3	0	.3	0	0	2.7	0	0	0	2.7
Intermediate/Specific	n	3	3	4	1	2	4	1	0	0	0	0	0	18	4	0	4	22
	%	1.0	1.0	1.3	.3	.7	1.3	.3	0	0	0	0	0	6.0	1.3	0	1.3	7.3
General/Specific	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total Unions	n	3	3	8	1	3	5	1	1	0	1	0	0	26	4	0	4	30
	%	1.0	1.0	2.7	.3	1.0	1.7	.3	.3	0	.3	0	0	8.6	1.3	0	1.3	10.0
Grand Total	n	41	29	27	10	32	35	17	15	5	14	15	6	246	49	6	55	301
	%	13.6	9.6	9.0	3.3	10.6	11.6	5.6	5.0	1.7	4.7	5.0	2.0	81.7	16.3	2.0	18.3	

Appendix A

Summary of the Distribution Across the Taxonomy of Competency Statements Employed in the Rosenberg Competency Study

Level	Category	Instructional Planning	Coordination	Basic Education	Implementing Instruction	Evaluation and Assessment	Administration & Supervision	Counseling & Guidance	Collaboration & Liaison	Record Keeping & Accountability	Classroom Management	Public Relations	Extra-Curricular Tasks & Activ.	Total	Union (2)	Union (3)	Total Unions	Grand Total
		IP	Co	BE	II	EA	AS	CG	CL	RA	CM	PR	EX					
General	n	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1
	%	0	0	0	0	25.0	0	0	0	0	0	0	0	25.0	0	0	0	25.0
Intermediate	n	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
	%	25.0	0	0	0	0	0	0	0	0	0	0	0	25.0	0	0	0	25.0
Specific	n	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1
	%	0	0	0	0	25.0	0	0	0	0	0	0	0	25.0	0	0	0	25.0
Sub-total	n	1	0	0	0	2	0	0	0	0	0	0	0	3	0	0	0	3
	%	25.0	0	0	0	50.0	0	0	0	0	0	0	0	75.0	0	0	0	75.0
General/Intermediate	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intermediate/Specific	n	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1
	%	0	0	0	0	25.0	0	0	0	0	0	0	0	25.0	0	0	0	25.0
General/Specific	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total Unions	n	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1
	%	0	0	0	0	25.0	0	0	0	0	0	0	0	25.0	0	0	0	25.0
Grand Total	n	1	0	0	0	3	0	0	0	0	0	0	0	4	0	0	0	4
	%	25.0	0	0	0	75.0	0	0	0	0	0	0	0	100.0	0	0	0	

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Appendix B

Coding Scope Notes

Appendix B

Coding Scope Notes:

A Taxonomy of Professional Education Competencies

Related to the Vocational Education of Special Needs Students

Phase I Analysis of Prior Competency Studies

Competency statements which apply to vocational education and/or special education were derived from 14 studies. The competencies were then organized according to a taxonomy consisting of two dimensions:

- 1) Role function categories (RFCs)
- 2) Levels of specificity.

The final version of the taxonomy provides for 12 RFCs (plus a non-competency category); three levels of specificity and a union option introduced to insure mutual exclusivity for statistical purposes and as a means of identifying competencies which cross aspects of the taxonomic structure. Statements were allocated to the RFCs or the union of two or more of them. Statements placed in the non-competency category were not further classified. Those statements placed in the RFCs were then classified by level of specificity. Three levels were designated as general, intermediate, and specific. Several competencies did not seem to fit into any one level and were, therefore, placed in the union of two levels. Definitions and examples of the categories and levels are given below.

Dimension I: Role Function CategoriesInstructional Planning (IP):

This category includes competencies concerned with designing materials, developing curricula, establishing course content, constructing I.E.P.'s, and anything else involved in teaching, short of carrying out the instructional procedure.

- e.g.:
- (1) Develop curriculum on functional academics.
 - (2) Plan field trips.
 - (3) Construct a daily assignment sheet for class activities.

Coordination (Co):

This category includes competencies concerned with liaison between student and industry, job placement and on-the-job training.

- e.g.:
- (1) Establish a policy and procedure for job placement.
 - (2) Provide consultant services to local business and industry.
 - (3) Determine federal and state wage and hour classification of the prospective cooperating employer.

Basic Educational Foundations/Preparation (BF):

This role function includes general knowledge, awareness, and understanding of the handicapped, vocational education, society, and culture as it relates to teaching, and state and federal laws concerned with education. Statements included in this category did not indicate to what use this knowledge was to be applied.

- e.g.: (1) Possess knowledge of the characteristics of disadvantaged and handicapped students.
 (2) Know vocational vocabulary.
 (3) Understand the teacher's legal responsibility with respect to liability in the use of common tools.

Implementing Instruction (II):

Included here were competencies concerned with execution of teaching and the utilization of materials, aids and equipment.

NOTE: Those competencies concerned with discipline and control of behavior, and the arrangement and maintenance of classroom facilities, were excluded.

- e.g.: (1) Elicit student feedback on information presented.
 (2) Present information via media: demonstration, exhibits, videotape, cassette, recorder, 35mm slides, motion pictures, film loops, programmed materials, chalkboard, flannel board, flip chart, lecture, role playing, simulations.
 (3) Use a variety of questioning techniques: recall, synthesis, application of principle, judgment.

Evaluation and Assessment (EA):

This category included those competencies concerned with the design, selection, administration, and interpretation of assessment of students, personnel and programs.

- e.g.: (1) Evaluate instructional effectiveness.
 (2) Administer occupational tests relative to student selection and placement.
 (3) Interpret test results.

Administration and Supervision (AS):

This category included those competencies concerned with the overall functioning of the program, with the exception of actual instruction and liaison.

- e.g.: (1) Plan an operating budget proposal for consumable supplies, services, and materials needed in the program.

- (2) Plan the overall objectives and curricula for the total school program.
- (3) Implement procedures for systematically placing special education students in general education classes and returning re-entered students to the special class when necessary.

Counseling and Guidance (CG):

Designated here were those competencies that included assistance in handling students' personal problems and career decisions, and in promoting good study habits and students' general well-being.

- e.g.:
- (1) Consistently uses sound counseling technique.
 - (2) Develop value clarification strategies.
 - (3) Conduct orientation for available academic and vocational programs.

Collaboration and Liaison (CL):

In this role function were included competencies relating to the establishment of communication among school personnel and between the school and community which are not involved in school-job coordination efforts. It also excluded the function of public relations.

- e.g.:
- (1) Maintain good relations with other schools.
 - (2) Maintain liaison with community professional, service, fraternal, social, and religious organizations.
 - (3) Maintain working relationships with school support staff through cooperation and mutual effort.

Record Keeping and Accountability (RA):

This category included competencies concerned with the maintenance and review of student records and supply inventories.

- e.g.:
- (1) Compile accurate, up-to-date records.
 - (2) Maintain a record of individual work hours and work progression of on-the-job training.
 - (3) Maintain a system for recording attendance.

Classroom Management (CM):

Competencies in this category referred to discipline and control of behavior, and the maintenance of safety procedures and management of the physical environment.

- e.g.:
- (1) Demonstrate knowledge of techniques for maintaining classroom discipline.

- (2) Establish a procedure for attending first aid needs of industrial education students.
- (3) Develop a plan for involving students in cleaning and maintaining the laboratory and classroom.

Public Relations (PR):

This category included competency statements concerned with the promotion and advertisement of the educational program in the community.

- e.g.:
- (1) Use media for public service announcements.
 - (2) Develop public relations literature.
 - (3) Conduct an open house to familiarize members of the school and community with activities of the industrial education programs.

Extracurricular Activities (EX):

In this category were included competencies that involved the establishment of student organizations, leisure, and course-related activities.

- e.g.:
- (1) Organize a club program.
 - (2) Assist students in developing wholesome leisure activities.
 - (3) Plan ways to involve students in clubs, organizations, special events, and course related activities.

Non-competencies:

This group included statements that were recognized as principles, attributes or characteristics, entry level behavior, and activities.

- e.g.:
- (1) Support professional organizations through membership and attendance at meetings.
 - (2) Placement committee members must assume collective responsibility for the creation of the re-entered handicapped students' individualized educational plan.
 - (3) Demonstrate restraint under verbal and physical attack.

Unions in General:

These were generated as a result of 1) two or more verbs implying discrete actions related to two or more categories, or 2) a single competency, characteristic of two or more categories with no limits to either one.

- e.g.:
- (1) Organize and use a "buddy system" for special needs learner.
 - (2) Develop, use, and evaluate job samples designed to teach specific occupational skills.

- (3) Be able to group children on a variety of parameters.
- (4) Devise problem-solving techniques.

Three or more categories (3+):

Universals or the union of a number of verbs were included here.

- e.g.:
- (1) Respond to individual student needs.
 - (2) Meet the needs of disadvantaged students with handicaps.
 - (3) Identify, evaluate, and utilize instructional materials appropriate for disadvantaged and/or handicapped students.
 - (4) Develop, employ, and analyze reinforcement contingencies.

Dimension II: Levels of Specificity

General Level:

In this level, a broad area of concern was identified but remained unbound by any specifications.

- e.g.:
- (1) Relate instruction to the world of work.
 - (2) Demonstrate awareness of sound counseling techniques.
 - (3) Develop, coordinate, and evaluate a community relations program.

Intermediate Level:

In this level were included competencies which implied two or more actions, limited by some type of descriptor. There were also those that were a step in the attainment of a general goal, but implied several competencies.

- e.g.:
- (1) Plan for, implement, and supervise activities for a student industrial education
 - (2) Formulate with students acceptable standards of behavior in laboratories, and maintain those standards.
 - (3) Publicize the purpose and objectives of an industrial education survey.
 - (4) Conduct student follow-up studies.

Specific Level:

In this level were included competencies that implied verbs which were limited by two or more descriptors and/or employed a technique for application.

- e.g.:
- (1) Inform students of scholarships and grants available.
 - (2) Implement a token economy system for classroom management.

- (3) Anticipate the significance and impact of the attitude and feelings that a student being considered for re-entry might have about his placement.
- (4) Structure a filing system for records, report forms and instructional materials used in an industrial education course.

General/Intermediate Level:

Competencies that could be designated as belonging to either a general or intermediate level were placed here.

- e.g.:
- (1) Develop a job analysis.
 - (2) Assist students in development of goals.
 - (3) Determine and understand cross-cultural values of students.

Intermediate/Specific Level:

Competencies that were recognized as either intermediate or specific in level were placed here.

- e.g.:
- (1) Identify personality patterns.
 - (2) Utilize guidance and counseling practices appropriate for working with disadvantaged and handicapped students.
 - (3) Interpret educational tests.

General/Specific Level:

Those competencies that, depending on the reader's perspective, could be viewed as either of a very broad nature, or of a very specific type, were placed here.

- e.g.:
- (1) Strive to create an atmosphere of open communication and cooperation among staff members.
 - (2) Employ oral questioning techniques.
 - (3) Maintain an orderly classroom.

Appendix C

Taxonomic Classification of the Competencies

**Taxonomic Classification of the Unique Competencies
from the Kent State University Studies**

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Chart student progress	I	EA
Identify emotional factors that affect classroom environment	S	EA
Develop a system of recording attendance	S	RA
Determine effectiveness of instruction	I	EA
Utilize available classroom facilities	G	CM
Operate audio-visual equipment	I	II
Implement team teaching	I	II
Stimulate learning through "brain-storming", "buzz-groups", and "question box techniques"	S	II
Employ oral questioning techniques	G/S	II
Employ role-playing and simulation techniques	S	II/CG
Assess the ability of handicapped individuals to modify his or her behavior	I	EA
Assist students in scheduling adjustments	S	AS
Identify state and federal guidelines	S	AS
Utilize results of achievement tests	I	IP/II
Estimate time sequence for a unit of instruction	S	IP
Develop a unit plan	I	IP
Develop student training plans for the handicapped	I	IP
Assess reading level of handicapped students	I	EA
Construct instruments to evaluate instructional objectives for the handicapped	I	EA
Administer appropriate diagnostic tests to the handicapped	I	EA

Kent State University Studies (Contd)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Locate instructional materials	I	II/IP
Diagnose specific reading difficulties	I	EA
Prepare a budget	I	AS
Incorporate deductive thinking into curriculum	I	IP/II
Incorporate inductive thinking into curriculum	I	IP/II
Utilize audio-visual aids	G	IP/II
Arrange guided field experiences	I	IP/II
Develop positive reinforcement techniques	S/I	CM/II
Implement program modifications	I	IP/II
Incorporate world of work into math instruction	I	IP/II
Conduct student follow-up studies	I	Co
Develop a filing system	I	RA
Compile accurate, up-to-date records	G	RA
Maintain a personal data file for each student	S	RA
Assess the ability of individual to modify his or her behavior	I	EA
Conduct orientation for available academic and vocational programs	S	CG
Inform employer of student in-school progress	S	Co
Interpret results of vocational interest tests	S	EA
Interpret psychological tests	S/I	EA
Interpret educational tests	S/I	EA
Devise problem-solving techniques	I	CG/II/CM
Develop public relations literature	I	PR
Prescribe remedial reading activities for the handicapped	I	EA/IP

Kent State University Studies (Contd)

Competency	Level	Role Function
Construct instruments to evaluate instructional objectives	I/S	EA
Prescribe remedial math activities for the handicapped	I	EA/IP
Direct handicapped students toward alternate programs	S/I	CG
Incorporate business and industrial manuals in curriculum	S	IP
Coordinate activities with participating schools	I	CL
Coordinate activities with law enforcement agencies and the courts	S	CL
Organize an advisory committee	I/S	AS
Conduct a successful home visitation	S	CL
Conduct a parent-teacher conference	S	CL
Develop student training plans	G	Co
Facilitate and coordinate school and employer training responsibilities	I	Co
Develop a process and a procedure for student selection	I	AS
Give a lecture	I	II
Present a demonstration	I	II
Conduct a student conference	S	CG
Design and organize the physical plan of a classroom	S	CM
Group students for small group instruction	S/I	IP/II/CM
Develop a system of material storage	S	CM
Develop a schedule for cleaning work areas	S	CM
Moderate student discussion of sensitive issues	S	CG
Prepare a schedule of student activities	S	IP/II

Kent State University Studies (Contd)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Evaluate student reading progress	I	EA
Assess student comprehension of math concepts	I	EA
Establish a student tutoring program	S/I	II/IP
Utilize problem-solving strategies	I	CG/II
Construct a procedure for job relocation or rotation	S	Co
Involve the family as a primary source of student reinforcement	S	CG/CL
Demonstrate awareness of sound counseling techniques	G	CG
Consistently uses sound counseling techniques	I	CG
Assess the psychomotor skills of handicapped students	I	EA
Assess the psychomotor skills of non-handicapped students	I	EA
Locate instructional materials for the handicapped	I	IP/II
Select instructional materials for the handicapped	I	IP/II
Develop VoEd instructional materials for handicapped students	I	IP
Develop VoEd instructional materials for non-handicapped students	I	IP
Conduct conference with the parents of handicapped students	S	CL
Conduct conferences with the parents of non-handicapped students	S	CL
Develop a process and a procedure for selection of handicapped students for mainstreaming	I	AS
Complete state reports	S	AS
Construct a system of reporting student progress to students and parents	S	AS
Identify entry level jobs in the community	S	Co

Kent State University Studies (Contd)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Establish a plan for continuing personal professional development		Non C
Establish a plan for continuing professional in-service education	I	AS
Identify emotional factors which contribute to reading difficulties	S/I	EA
Identify intellectual factors which contribute to reading difficulties	S/I	EA
Identify educational factors that contribute to reading difficulties	S/I	EA
Identify physical factors which contribute to reading difficulties	S/I	EA
Develop local program objectives.	G	IP
Identify possible field trip sites.	S	IP
Organize and/or conduct a local program review and/or evaluation	I	EA
Evaluate students progress at a training or work station	I	EA
Evaluate student progress at a learning center or learning station	I	EA
Administer appropriate diagnostic tests	G	EA
Administer appropriate diagnostic reading tests	I	EA
Prescribe remedial reading activities	I	EA/IP
Prescribe remedial math activities	I	EA/IP
Implement program modification for special needs/handicapped students	I	IP/II
Write behavioral objectives	I	IP
Assess student reading level	I	EA
Diagnose reading problems	I	EA

Kent State University Studies (Contd)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Identify entry level jobs for the handicapped in the community	S	Co
Establish a policy and procedure for job placement	G	Co
Contact reading resources and publication houses	S	IP
Select instructional materials	G	II/IP
Communicate individual subject goals to faculty and administration	S	CL
Publicize program in school	G	PR
Publicize program in community	G	PR
Inform school officials of their responsibilities	S	AS
Estimate cost of materials	S	AS
Organize a unit of instruction on career education	I	IP
Conduct teacher-to-teacher conferences	S	AS/CL
Construct a lesson plan	I	IP
Develop a course of study	G	IP
Survey local trends in business and industry	I	Co
Utilize results of achievement tests administered to the handicapped	S	II/CG/IP
Utilize results of diagnostic tests administered to the handicapped	S	II/CG/IP
Research current trends in business and industry	I	Co
Develop an Individual Educational Plan (IEP) for handicapped students	I/S	IP
Adapt your curriculum and instruction for the handicapped	I	IP/II
Utilize results of diagnostic tests	G	IP/II
Identify resource people	I	IP

Taxonomic Classification of the Unique Competencies
from the Yanok, Green, Lawson, and Von Fischer Study

Competency	Level	Role Function
Assume an active role in the future of the re-entered student's educational program.		Non C
Establish, prior to re-entry, educational goals and identify instructional processes to meet the goals.	I	IP
Aid the teacher in individualizing the instructional program for the re-entry child.	I	II/CL/IP
Develop a written individual educational plan for each student returned to the general education classroom.	S	IP
Determine what instructional materials are available in the receiving classroom and what additional aids and resources will be required to accommodate the re-entered student.	S	IP
Recommend instructional material for remediating the re-entered students learning deficits in the regular classroom setting.	S	IP
Prepare the handicapped student for the transition into the mainstream by introducing him to instructional materials and texts that are being utilized in the re-entry classroom.	S	II/IP
Observe the re-entry student in the regular setting so that the instructional program may be modified to accommodate the child's unique learning needs.	S	EA
Utilize the goals and objectives enumerated in the re-entered student's individualized educational plan as a guide for classroom instruction.	S/I	II/IP
Be knowledgeable about the re-entered student's instructional program and insure that he understands his assignments.	S/I	II/IP
Familiarize yourself with general classroom expected behaviors and activities.	S/I	Non C
Analyze mainstream class materials to determine their appropriateness for a prospective re-entry student.	S	IP/EA
Observing the behavior of the child on the playground, and visiting the special classroom should aid the teacher in acquiring additional insight into the problems of the special child.	S	EA

Yanok, Green, Lawson, and Von Fischer Study (Contd)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Assist special classroom teachers in screening candidates for re-entry.	S	EA/CL
Inform teachers of the levels of educational functioning of each re-entry student.	S	CL
Consult with special education supervisor in the establishment of appropriate instructional objectives for the mainstreamed student.	S	CL
Assist the general classroom teacher in understanding the favored learning modalities of the prospective mainstreamed student.	S	CL
Assist in the development of re-entry placement procedures at the school building level.	I	AS
Confer and consult with central office administration regarding the ongoing activities of the re-entry program.	S	CL
Assist in the development of a record keeping system for charting the handicapped student's educational progress.	S	EA/RA
Assist in the development of the individualized educational plan for the re-entered handicapped student.	S	IP/EA
Provide assistance in identifying and assessing prospective re-entry students.	I	EA/CG
Cooperate with special education supervisor to coordinate respective roles in the re-entry program.	S/I	AS/CL
Assist the regular class teacher in the development of individualized instructional goals and activities for re-entered students.	S	IP/CL
Collaborate with the regular educator in explaining the handicapped student's individualized program and progress during parent conferences.	S	CL
Suggest instructional materials and procedures that may be effectively utilized with the re-entry student.	S	IP/II

Yanok, Green, Lawson, and Von Fischer Study (Contd)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Formulate procedures which provide for students' participation in the evaluation of instruction.	S	EA
Determine achievement levels (math, reading, etc.) of general education students and grading procedures used by the general class teacher.	S	EA
Utilize formal and informal student assessment data to determine the appropriateness of the proposed re-entry placement.	C/I	IP, EA
Assume responsibility for insuring that the partially re-entered student promptly arrives for instruction in the regular classroom during designated periods of the school day.		Non C
Extra-curricular activities should be encouraged to enhance the child's social and motor development.		Non C
The teacher should discern the frustration level of the child before assigning work.	S	II, EA, IP
Request that each receiving re-entry teacher provide a checklist of specific academic and social skills necessary for success in their classroom.		Non C
Conduct school conferences and/or home visitations with the parents of the mainstreamed handicapped child.	S	CL
Compile student achievement data that substantiates the recommended re-entry placement.	S	EA
In-service should extend from allowing the teacher to visit special classes to preparing administrators and support services for the integration process.		Non C
Exercise discretion as chief administrative officer in placement committee proceedings.		Non C
In establishing instructional goals and objectives for the special child, consider the student's academic ability, social adequacy, psycho-motor coordination, and learning style.	S	IP
Write student performance goals for the industrial education courses.	I	IP

Yanok, Green, Lawson, and Von Fischer Study (Contd)

Competency	Level	Role Function
Prepare and disseminate to re-entry personnel a bibliographical list of references and resources comprised of professional books, journals, and non-print media pertaining to mainstreaming.	S	AS
Provide for open communication between school representatives and general and special class parents whose children are involved in re-entry classrooms.	S	CL
Facilitate the handicapped child's educational progress by augmenting the school program in the home.	S	CL
Become familiar with supportive services within the community which may assist in the implementation of the re-entry program.	S	CL
Maintain an accurate class list of students being referred and placed into the re-entry program.	S	RA
Obtain information from parents relative to their expectations of the program.	S	PR
Devise a coordinated process for determining and reporting student progress.	S/I	AS
Observation of the handicapped child in the regular classroom milieu should be periodically scheduled.	S	EA
Identify general education classroom instructional variables prior to re-entry of handicapped students.	S	EA
Administer formal standardized tests as requested by the sending or receiving teacher.	I	EA
Acquire and disseminate information regarding the experiences of other school systems implementing re-entry placement programs.	S	AS
Assist in providing re-entry in-service training for participating school personnel.	I	AS
Inform re-entry teachers of the special education materials and services available to them as instructors of the handicapped.	S	AS

Yanok, Green, Lawson, and Von Fischer Study (Contd)

Competency	Level	Role Function
The regular and special teachers should jointly plan the ongoing mainstream educational program for the integrated child.	S	IP, CL
Successful instructional strategies and ideas should be shared with other educators who have or may be scheduled to receive special children.	S	Non C
Consult with teachers and supportive service personnel to insure that the student is having successful educational experiences.	S	CL
Conduct periodic staffings regarding the progress of the re-entered student.	S	AS
Establish a policy for grading which is mutually agreeable to the sending and receiving teacher.	S	AS
Share evaluation results with the student, participating professional staff, and parents.	S	CL
Supportive service personnel periodically should be consulted to obtain additional assistance in implementing the student's individualized educational plan.	S	CL
Consultation between the general and special teacher should occur frequently.		Non C
Assist teachers in devising an ongoing record keeping system for re-entered students.	S	RA, CL
Consult with teachers to determine degree to which instructional objectives are being accomplished.	S	CL
Placement committee members must assume collective responsibility for the creation of the re-entered handicapped student's individualized educational plan.		Non C
Develop student "check out" procedures for tools, supplies, and equipment used in the laboratory.	S	RA, CM
Provide supplemental materials, resources, and equipment for the mainstream classroom.	S	AS
Information regarding the child's expressed attitude toward school should be conveyed to the teacher.	S	CL

Yanok, Green, Lawson, and Von Fischer Study (Contd)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Analyze enrollment trends to determine student and parent acceptance of the program.	S	AS
Provide parents with literature that will promote understanding of their child and his educational strengths as well as deficits.	S	CG
Aid the school administration in communicating the re-entry program to the general public.	G	PR
Explain to participating school personnel the educational goals and objectives established for the re-entered handicapped student.	I	CG/PR
Provide information and materials to both parents and teachers regarding the education of students with special needs.	S	PR
Confer with school psychologist to review student records for possible re-entry placement.	S	CL
Work with building principal to plan the re-entered student's regular class placement and schedule.	S	CL
Develop a list of area social service agencies to assist school personnel in referring parents to additional resources for their handicapped child within the community.	S	CL
Assist in securing supportive services for handicapped students in the regular classroom.	I	CL
After testing, consultation, and observation, the teacher should initiate referrals of students with special needs to the proper supportive service personnel.	S	CL
Assure open and frequent communication between the general and special education teachers involved in the re-entry process.	I	CL
Collect and record attitudinal data pertaining to the general and special education teachers' feelings about handicapped students and their re-entry.	S	CL

Yanok, Green, Lawson, and Von Fischer Study (Contd)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Maintain records of the handicapped student's progress throughout the re-entry program.	S	RA
Maintain a record of successes and failures of mainstreamed students.	S	RA
An ongoing cumulative profile and other records pertaining to the child's school program should be compiled.	S	RA
Strive to create an atmosphere of open communication and cooperation among staff members.	G/S	AS
Insure that, to the maximum extent possible, all special students are integrated in regular non-academic programs.	I	AS
Control the re-entry class teacher/pupil ratio.	S	AS
Attempt to reduce student enrollment in the mainstream classes.	S	AS
Initiate a spring screening of all kindergarten students.	S	AS
Participate in the development of re-entry in-service training and disseminate information to teachers about classes and workshops concerning the subject of mainstreaming.	I	AS
Provide in-service training to school staff members concerning mainstreamed education for the handicapped.	I	AS
Obtain parental permission prior to the initiation of formal testing.		Non C
Provide periodic student progress reports to the parents.	S	CL
Medical information which may have a bearing on the handicapped child's school performance should be shared with the teacher.	S	CL
Interpret multi-factored psycho-educational assessment results to regular and special education personnel.	I/S	CG/CL
Conduct parent conferences concerning progress of re-entered student.	S	CL

Yanok, Green, Lawson, and Von Fischer Study (Contd)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Insure that the re-entry program complies with all federal, state, and local laws, rules, and regulations regarding the education of the handicapped.	S	AS
Determine staff in-service needs resulting from implementation of a re-entry program.	S	AS
Organize re-entry in-service training programs for the entire staff.	I	AS
Establish a time table for the implementation of re-entry procedures for each handicapped child referred for general class placement.	S	AS
Develop a measurable general and special education curriculum based on performance objectives in schools where re-entry occurs.	S/I	IP
Anticipate the significance and impact of the attitude and feelings that a student being considered for re-entry might have about his placement.	S	CG
Develop, in general education students, an awareness, understanding and acceptance of wide ranges of skills, abilities, knowledge and appearances.	I	CG
Formulate programmatic and student instructional objectives for the re-entry placement.	S	IP
Ascertain the attitudes of regular class teachers toward handicapped students and integrated education before considering in re-entry placement.		Non C
Supplement regular classroom instruction by providing individual tutoring.	S	IP/II
Offer emotional support to the re-entered student during the transitional phase from special to regular class placement.	S/I	CG
Based upon evaluation data, collectively develop new instructional objectives in concert with the re-entered student, the regular class teacher, and the parents.	S	IP/CL

Yanok, Green, Lawson, and Von Fischer Study (Contd)

Competency	Level	Role Function
Systematically observe the child to determine whether the child is capable of working independently and establishing amicable social relationships with peers.	S	EA
Provide in-service for teachers to develop observational and initial identification schools.	S	AS
Conduct formal testing and systematic classroom observations of prospective re-entry students.	I	EA
Administer standardized intelligence and academic achievement tests and other appropriate assessment instruments.	G	EA
Formal and informal assessment should be conducted to record the educational progress of the child.	G	EA
Provide the receiving regular teacher with professional literature regarding the education of the handicapped.	S	AS
Collect and record general education classroom climate data to determine social inter-relationships of the re-entered handicapped student.	S	EA
Modify class scheduling to facilitate the placement of handicapped students in regular education programs.	S	AS
For each child, maintain individual records which document performance in the re-entry program design for him.	S	RA
Provisions must be made to insure that both handicapped and non-handicapped students are taught those daily living skills necessary to survive in the adult community.		
Information regarding the child's reaction to the re-entry program should be communicated to the teacher.	S	CL
Assess the social behavior of students being considered for re-entry.	I	EA
Develop processes for overcoming obstacles to building a good program.	I/G	AS

Yanok, Green, Lawson, and Von Fischer Study (Contd)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Conduct teacher-parent conferences to plan a cooperative and coordinated instructional program in the classroom and at home.	S	CL
Evaluation of the program should be undertaken to insure that the individualized educational plan is being properly implemented.		Non C
Become familiar with the educational history of the child who is being considered for the re-entry program.	S	IP
Prior to re-entry, conduct an evaluation of the regular classroom climate.	S	EA
Establish minimum criteria on which all re-entry placements will be evaluated.	S	AS
Be willing to work with the special child and feel free to voice her concerns, both positive and negative, to other professional staff members.		Non C
Strive to improve teaching techniques which will better serve the needs of the mainstreamed child.	G	IP/II/BF/ CM
See that supplemental materials and equipment are available to aid the sending and receiving teachers in their efforts to provide instruction for handicapped students.	I/S	AS
Committee members must consider all alternative forms of placement before determining that the re-entry program is most appropriate for the handicapped student.		Non C
The supervisors recommendation concerning the continuation or termination of the re-entry placement should be based upon observation, data, informal classroom, and formal evaluations.		Non C
Evaluate teacher's performance and explain the role of self-analysis in the improvement of teaching performance.	I	EA/CG
Function as a diagnostician in the re-entry process.	G/I	EA

Yanok, Green, Lawson, and Von Fischer Study (Contd)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
An effort should be made to minimize the number of days the child is absent from school.		Non C
Provide instructional materials, resources, and equipment to facilitate the teaching of the re-entered student in the regular classroom.	S	IP/II
Optimize learning, with consideration given to the assignment of the re-entered student's seat in the regular classroom.	S	CM
Be aware of children who are receiving medication.		Non C
Assist the teacher in her efforts to sensitize the class toward individual differences.	S	CG
Assume an active role in recommending teachers to in the re-entry program.	S	AS
Assist in the selection of regular classroom teachers to participate in the re-entry program.	S	AS
Identify regular education teachers who are both willing and able to work with special students.	S	AS
Identify regular classroom teachers to demonstrate the tolerance and flexibility required to work with handicapped students.	S	AS
Accommodate the unique instructional needs of the re-entered student a variety of teaching methods and materials must be employed in the regular classroom.	I	IP/II
Establish a peer tutoring system to aid the integrated handicapped child in completing classroom assignments.	S	IP/II
Help the re-entered student acquire a better self-image by structuring successful learning experiences in the regular classroom.	S	IP/II
Provide teachers with information and assistance utilization of behavior modification techniques in the classroom.	I	CG

Yanok, Green, Lawson, and Von Fischer Study (Contd)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Maintain constant communication among placement committee members as they daily evaluate the re-entered student's academic and social progress.	S	CL
Coordinate the individualized instructional program being implemented in both the regular and special class for the partially-integrated handicapped student.	S	CL
Determine the most pertinent data that the placement committee must obtain prior to considering a student for re-entry placement, then assign a member to assume responsibility for collecting it.	S	AS
Initiate a follow-up subsequent to placement to insure that the student makes a successful adjustment into the integrated class.	I	CL
Insure that the re-entered student comprehends the grading policy operating in both the special and regular classes.	S	II
Expediently establish rapport and clearly communicate to the child that which will be expected of him.	S	II
Strive to insure the social acceptance of the mainstreamed child by his non-handicapped classmates.	I	CG/CM
Develops acceptable work habits.	G	Non C
Aid the teacher in devising instructional strategies and selecting appropriate educational materials for the re-entry child.	I	CL/IP/II
Assist in the development of a formal procedure for periodically reporting the progress of the re-entered handicapped student to the parents.	S	AS
A written policy should be created describing the school districts re-entry plan and procedures.	I	AS
Assist teachers in sensitizing regular education students to the mainstreamed handicapped child's need for acceptance by peers.	S/I	CG

Yanok, Green, Lawson, and Von Fischer Study (Contd)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Insure that the re-entered student's placement is reviewed at least annually.	S	AS
Develop forms for periodically reporting the progress of the re-entered student.	S	AS
Compile annual re-entry evaluation report outlining the results of the past year and recommendations for the following year.	S	AS
Conduct periodic staffings to review assessment data and make recommendations about each student's re-entry status.	S	AS
Disseminate information to staff members regarding the re-entry program.	I	AS
Encourage the child to attempt challenging as well as simple learning tasks without thwarting his motivation nor threatening his self-confidence.	S	II
The child must receive positive reinforcement to maintain motivation and interest in school.		Non C
Initiate home-school conferences and correspondences to appraise parents of their handicapped child's progress.	S	CL
Periodically, schedule time during the school day for brief teacher-pupil conferences to inform the child of the progress he is making.	S	CG
Provide information to parents about professional sources of evaluation outside the school.	S	CL
Suggest techniques and devices for evaluating the re-entered student's social and emotional adjustment.	S	EA
Parents must vocalize their own assessment of the merits of the child's re-entry education program.		Non C
Provide administrative leadership and support for re-entry activities.	S	AS

Yanok, Green, Lawson, and Von Fischer Study (Contd)

Competency	Level	Role Function
Monitor the ongoing educational progress of the re-entered handicapped student in the integrated regular classroom setting.	I	EA
Observe the handicapped student in the regular classroom to determine if the re-entry placement is succeeding.	S/I	EA
Conduct observations in the regular classroom to monitor the re-entered student's achievement and adjustment.	S	EA
Conduct a continuous assessment of the re-entered student's academic progress in the general and special class.	S	EA
Parents should support the re-entry program by communicating and cooperating with the school personnel.		Non C
A cooperative effort on the part of the parent should be demonstrated by providing information concerning the child's social, emotional, and medical behavior, as well as information about the educational interests and attitudes of the child.		Non C
During the placement conference, parents should voice their concerns about the re-entry program and express the expectations and goals they hold for their child.		Non C
Parents should encourage their child to participate in community activities, such as the Scouts or the YMCA, to assist him in learning appropriate social behavior.		Non C
Parents should form a committee of volunteers to help promote greater understanding of special education and re-entry program.		Non C
The parent should give consent for a psychological evaluation when the child is being considered for re-entry.		Non C
The parent should evaluate the merits of having their child remain in special education or permitting his placement in a re-entry program.		Non C

Yanok, Green, Lawson, and Von Fischer Study (Contd)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Organize a para-professional or volunteer aide program for sending and receiving classrooms.	S	AS
Secure supplemental tutoring for re-entered students requiring remedial assistance in the regular classroom.	S	AS
Insure that clerical assistance is available to staff members participating in the re-entry program.	S	AS
Periodically inform the superintendent and board of education of the progress of the re-entry program.	S	AS
Provide proper communication to parents concerning placement.	S	CL
Schedule conference periods to confer with school personnel and parents to discuss re-entry placement.	S	AS
Schedule time for general education teachers to observe special education classes.	S	AS
Implement procedures for systematically placing special education students in general education classes and returning re-entered students to the special class when necessary.	I	AS
Inform teachers of proper student referral procedures for assessment and placement.	S	AS
Organize a placement committee which will have the responsibility for re-entry of special class students into general education classes.	S	AS
Schedule and conduct placement conference involving multi-disciplinary team members.	S	AS
Screen all referrals for re-entry prior to instituting the formal assessment procedures.	S	AS
Inform special education supervisor of handicapped students recommended for re-entry placement.	S	AS
Prior to placement, identify where matches between the special student's academic, social and vocational skill development and minimum performance levels required in the general education class occur.	I/S	EA

Yanok, Green, Lawson, and Von Fischer Study (Contd)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Collect and record assessment data to determine the degree of vocational readiness of the re-entered handicapped student.	I	EA
Prepare a written report describing the re-entered students specific academic strengths and weaknesses.	S	EA
Assess the instructional reading level of the student being considered for re-entry to determine if it is within the general class reading level range.	S	EA
Goals and objectives incorporated into the handicapped child's individualized educational plan should constitute the criteria on which the re-entry placement evaluated.		Non C
Provide criterion, as well as norm-referenced assessment data, regarding the re-entered student's academic performance within the special classroom.	S	EA
Develop a comfortable format for placement committee conference involving the parent or the child.	S	AS
Determine competencies required of general and special class teachers involved in the re-entry program.	I	AS
Assist in devising a systematic procedure to remove handicapped students from the regular class setting when mainstreaming is not succeeding.	S	AS
Establish systematic procedures for removing an unsuccessfully placed handicapped student from the re-entry program.	I/S	AS
Establish systematic procedures for returning to the special class those previously re-entered students who are unable to benefit from the regular education program.	I	AS
Establish a set of systematic steps in the re-entry process.	I	AS
Establish procedures for the ongoing evaluation of the re-entry program and the progress of mainstreamed students.	I	AS

Yanok, Green, Lawson, and Von Fischer Study (Contd)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Insure that the roles and responsibilities of all re-entry team members are clearly defined for all involved in the integration process.	S	AS
Determine if the candidate for re-entry is sincerely interested in returning to the regular classroom.	S	CG
Communicate to the regular education teachers pertinent information about the re-entered student's medical history, physical disabilities, learning handicaps, and medication needs.	S	CL
Assist the re-entered student in formulating educational and career goals.	S/I	CG
Establish objective criteria on which special classroom candidates for re-entry are chosen.	I	AS
Inform the receiving regular class teacher of the re-entered student's level of academic functioning.	S	CL
Prepare regular class teacher to cope with possible discipline and adjustment problems of the re-entered student.	S	CG
Encourage the re-entry student to maintain a level of personal hygiene which is acceptable to his special and general class peers and teachers.	S	CG
Insure that the scheduling of the handicapped student into the re-entry class does not cause him to miss important instructional material in either the regular or special class.	S	AS
Conduct a preliminary individual conference with the mainstreamed child; and provide him the opportunity to visit the classroom prior to his formal placement.	S	CG
Explicate specific student strengths and weaknesses to the teachers and the parents.	S	CL
Request the special education teacher to justify the appropriateness of the re-entry placement for selected students.	S	AS

Yanok, Green, Lawson, and Von Fischer Study (Contd)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Cooperatively establish instructional goals and objectives S for the re-entered handicapped student.		IP/II
Collect and compare samples of the re-entered student's S work from both regular and special class to evaluate progress in both instructional settings.		EA
Inform the special education supervisor and the principal of the daily duration of the handicapped student's re-entry placement.		Non C

Taxonomic Classification of the Unique Competencies
From the Sheppard Study

Competency	Level	Role Function
Plan occupational experience programs and/or laboratory experience for disadvantaged and/or handicapped students	I	IP
Identify learning disabilities	I	EA
Refer students to the appropriate persons	I	CG/CL
Utilize guidance and counseling practices appropriate for working with disadvantaged and handicapped students	S/I	CG
Identify health problems of the disadvantaged and/or handicapped students	I	EA
Have practical experience via internships, externships, and student teaching or the like in preparation for teaching the disadvantaged/handicapped		Non C
Possess knowledge of the characteristics of the disadvantaged and handicapped students	I	BF
Identify and secure the cooperation of other agencies concerned with the welfare of the disadvantaged and/or handicapped students	S	CL
Possess the "know-how" in coordinating and utilizing community resources and services	I	CL
Identify and utilize appropriate teaching methods especially successful with disadvantaged and handicapped students	I/S	IP/II
Assume a role of instructional leadership and be knowledgeable about the personality, teaching methodology and style of the general educator	I/G	AS/BF
Manage discipline problems that may develop in working with disadvantaged and/or handicapped students	I	CM
Identify, evaluate, and utilize instructional materials appropriate for disadvantaged and/or handicapped students	I	II/EA/IP
Identify and utilize techniques of diagnosing learning problems and needs of disadvantaged and handicapped students	I	EA

Sheppard Study (cont.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Evaluate academic and vocational development (progress) of the disadvantaged and/or handicapped students	G	EA
Develop individual student performance goals and objectives	S	IP
Know how to relate to people - regardless of socio- economic level, race, color, or sex		Non C

Taxonomic Classification of the Unique Competencies
From the Brock Study

Competency	Level	Role Function
Use behavior management procedure to analyze and improve students' vocational skills	S	CM
Specify and control challenge of problem behaviors	I	CM
Analyze students' occupational aptitudes, liabilities, strengths, personal goals, and expectancies	I	EA
Develop, implement, and promote career oriented special education program in the local community	I	IP/II/PR
Develop, implement, and evaluate follow-up procedures (three year period)	I	EA/AS
Assist students in development of goals	I/G	CG
Develop student program.	G	IP
Select students for career education program.	I	AS
Instruction in the use of community resources which aid in vocational and social adjustment, e.g. DVR, social services job tryouts	S	II
Consultation with other secondary teachers	G	Non C
Analyze local job market and community work conditions	S	Co
Develop a career oriented special education program	I	IP
The student must be provided with:		
Vocational evaluation, e.g., interest and aptitude tests, job samples, work tasks, situational assessments, on-the-job evaluations	I	EA
Instruction and training for work adjustment, e.g., work habits, interest, motivation, interpersonal relationships, etc.	I	II
Activities promoting the development of manual abilities (motor skills)	I	II
Skills for a specific job or jobs, e.g., clerical, service, industry, etc.	I	II

Brock Study (cont.)

Competency	Level	Role Function
The student must be provided with Instruction in methods of job seeking and application	S/I	II
A professional person competent to make reports of the student's progress, evaluations, and recommendations to agencies and potential employer	S	EA
Possess and interest in and enthusiasm for working with the disadvantaged and handicapped students		Non C
Plan instruction in academic areas for troubled students	I/G	IP
Develop and implement procedures for consulting with parents on student progress	I	CL/AS
Train employers on requirements of controlled work placement	S	Co
Develop, utilize and evaluate job samples	I	EA
Identify, establish, and maintain part-time work placements for students	I	Co
Provide instruction in academic areas	G	IP/II
Conduct job application interview simulations	S	II
Social, emotional, and intellectual functioning related to his home background		Non C
Professional assistance in helping parents meet student needs, e.g., emotional support, dietary and rest requirements	S	CG
Instruction in methods of home management, e.g., cooking, purchasing and budgeting, clothing construction, etc.	I/S	II
Instruction in methods of home mechanics, e.g., operating appliances, minor repairing, caring for equipment	I/S	II
Instruction in methods of personal care, e.g., hygiene, nutrition, parenthood, sex education, safety	I/S	II

Brock Study (cont.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Instruction in use of leisure time, e.g., sports, crafts, social activities	S/I	II
Instruction in methods of utilizing community resources, e.g., post office, churches, etc.	S/I	II
Opportunities and training in communication skills, e.g., reading, writing, and speaking appropriately for daily activities	I/S	IP/II
Instruction in rights and responsibilities of civic activities, e.g., laws, voting, participation, etc.	I	II
Instruction in methods of mobility, e.g., driving, utilization of mass transportation	I/S	II
An ongoing evaluation of academic abilities and limitations, e.g., through observation, testing, etc.	S/I	EA
Academic skill instruction related to present and future vocational and social adjustment	G	II
Curriculum models so as to receive organized academic instructions in appropriate scope and sequence	I	IP
Vocational information, guidance and counseling, e.g., familiarization with world of work, knowledge of many occupations, their skill requirements, etc.	S/I	CG

Taxonomic Classification of the Unique Competencies
From the Andreyka, Blank and Clark Industrial Arts Study

Competency	Level	Role Function
Maintain contacts with industry	I	Co
Establish and maintain an advisory committee	I	AS/PR
Use effective written communication		Non C
Use effective oral communication		Non C
Provide bilingual instruction to meet the needs of students with language difficulties	S	II
Provide performance-based instruction	S	II/IP
Identify long-range goals for a course	I	IP
Evaluate instructional effectiveness	I	EA
Identify deficiencies in Industrial Arts program, such as facilities, tools, equipment, etc.	S	AS
Project resource needs	G	IP/AS
Meet the needs of handicapped students in the Industrial Arts program.	I	IP/Co/II/AS/ CG/CM
Utilize laboratory-oriented student personnel system	S	CM
Construct, use and interpret evaluation devices	G	EA
Assist students in developing self-discipline	I	CG
Identify and obtain additional sources of revenue for program	I	AS
Comply with state laws and regulations relative to education	S/I	AS
Use sound principles of public speaking		
Establish an order of business for each class/lab section	S	IP/II
Assess student performance with respect to cognitive, affective, and psychomotor objectives	G	EA
Employ reinforcement techniques	S/I	CM/II

Andreyka, Blank and Clark Industrial Arts Study (cont.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Present information with the chalkboard	S	II
Evaluate instructional effectiveness	I	EA
Conduct group discussions	I	CG/II
Exhibit a positive attitude toward the school, staff and administration		Non C
Exhibit a positive attitude toward recommended machine and tool use and care		Non C
Exhibit a positive attitude toward the world of work		Non C
Maintain a positive attitude and a high level of confidence in self.		Non C
Maintain high level of enthusiasm toward teaching		Non C
Maintain a system for inventory of equipment and equipment records	S	RA
Maintain a system of inventory for supplies	S	RA
Maintain student attendance records	S	RA
Maintain cumulative records	S	RA
Maintain individual student assessment profiles of skills and attitudes	S	RA
Direct the project method	S	II
Prepare directions for a substitute teacher	S	IP
Coordinate Industrial Arts program with other disciplines	I	Co
Develop a comprehensive teaching plan for a term's work	I	IP
Employ the techniques of role-playing and simulation	S	CG/II
Discuss student study of texts and references	I	II
Discuss student laboratory experiences	I	II
Identify the appropriate county and state personnel to solve educational problems	I	IP

Andreyka, Blank and Clark Industrial Arts Study (cont.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Provide instruction for slower and more capable students	I	IP/II
Present information through an illustrated talk	S	II
Complete assigned tasks on time		Non C
Design, experiment with, and solve technical problems		Non C
Demonstrate broad knowledge of industry	I/S	BF
Develop and use unit lesson plans	I	II/IP
Demonstrate a concept or principle	I	II
Direct individualized instruction	S/I	CM/II
Belong to and participate in appropriate professional organizations		Non C
Demonstrate behavior and procedures appropriate for a professional educator	G	ALL
Establish a professional library		Non C
Enforce safe working procedures and habits relating to tools and machinery	S	CM
Provide for first aid needs of students	S	CM
Take precautions against fire and other dangers	S	CM
Organize and maintain the industrial arts laboratory	I	CM
Maintain a system of tool and equipment maintenance	S	CM
Illustrate with models and real objects	S	II
Illustrate with bulletin boards	S	II
Present information with overhead projector	S	II
Present information with filmstrips and slides	S	II
Present information with films	S	II

Andreyka, Blank and Clark Industrial Arts Study (cont.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Prepare request for tools and equipment for county and state funding guide	S	AS
Select and use text, reference material, and special teaching aids	I	II/IP
Direct programmed instruction	S/I	II
Present information with televised materials	S	II
Present information using a subject matter expert	S	II

Taxonomic Classification of the Unique Competencies
From the Nelson, Johnson and Frank Study

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Know local labor market trends and placement opportunities and problems	I	Co
Prepare video-tape demonstrations	S	II
Simplify instructional units into small learning steps with constant use of repetition and over-learning	S	IP/II
Construct instructional units in daily living skills (telling time, counting change, etc.)	I	IP
Communicate effectively using simple verbal expressions, explanations, and examples		Non C
Communicate effectively using simple physical demonstrations	S	II
Communicate effectively using as many of the 5 senses as possible	I/S	II
Relate classroom instruction to life	I	IP/II
Provide a slower concept/skill learning pace	I/S	IP/II
Minimize lecturing and maximize learning by doing		Non C
Maximize stimulation by fluctuating learning activities	S	IP/CM/II
Build the EMR's self-concept through acceptance and success in classroom activities	S	IP/CG/II
Conduct flexible learning experiences (be able to quickly adjust to student needs)	I/S	CM/II
Develop more positive attitude toward working with EMRs		Non C
Acceptance of individual differences of the EMR		Non C
Understand the job requirements (motor and social skills) in those occupations applicable to the EMR	S	IP
Be aware of social and work problems encountered by EMRs	S	BF
Know vocational vocabulary	S	BF

Nelson, Johnson and Frank Study (cont.)

Competency	Level	Role Function
Give in-service training to other teachers working with EMRs	S	AS
Develop academic skills through vocational programs	I	II/IP
Develop instructional units revolving around job-specific concepts and skills rather than general concepts and skills (mini-courses, packages)	I	IP
Develop accurate progress charts of individual student progress in all courses, to include problems and specific concerns on an on-going basis	S	EA
Determine what is the function of the administrator in developing the EMR program	G	AS
Utilize behavior modification techniques in developing desired behavior	S	CM
Effectively utilize the services of an A-V specialist	S	II
Use staff from area university to assist in material adaptation and program planning	S	IP
Evaluate effectiveness of teaching techniques	I	EA
Utilize a competency based evaluation system rather than the A-B-C-D-F grading system	S	EA
Develop behavior observation skills	I/S	EA
Develop work samples based evaluation system	S	EA
Develop instructional units which will assist students in developing decision-making abilities	I	IP
Identify personality patterns	S/I	CG
Adjust educational program to suit the personality patterns of students	I	IP
Develop A-V materials	I	IP
Respond to individual student needs	G	IP/Co/II/ CG/CM
Utilize a public relations program	I	PR
Develop post-secondary programs	I	AS

Nelson, Johnson and Frank Study (cont.)

Competency	Level	Role Function
Conduct student interviews	S	CG
Develop an awareness of how to recognize students with problems in the regular class (EMR, learning disability, etc.)	I	CG
Job placement upon completion of schooling	S	Co
Conduct follow-up contacts with EMR's after graduation	I/S	Co
Develop alternative post-secondary vocational training opportunities for EMRs	S/I	AS
Organize a club program	I	EX
Develop work evaluation unit	I	EA
Develop positive working relationships with governmental agencies involved with the families of the EMR	S	CL
Evaluate the EMR vocational training program effectively	I/G	EA
Interpret test results	G	EA
Develop leisure time activities	I	EX/IP
Plan in-service programs for regular class teachers	I	AS
Organize Coop and on-the-job training programs	I	Co
Understand the I.Q.'s relationship to predicting vocational success, potential motor abilities, and work attitudes	I/S	EA
Willingness to depart from traditional teaching strategies		Non C
Adjust standards for performance expected of EMRs	S	IP/II
Utilize the internal and external referral processes to request information pertinent to classroom activities	S	AS
Know how to write a proposal	I	AS
Conduct a task analysis of a job	S	IP
Conduct home visits	S	CL

Nelson, Johnson and Frank Study (cont.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Develop special education vocabulary	S	BF
Ease the transition from school to work through instruction of job getting and job keeping skills	I	II/IP
Interpret diagnostic test data knowing its uses, limitations, and implications for classroom activities	I	EA
Translate medical and psychological reports into meaningful individualized vocational programs	I/S	IP
Break complex motor skills into simple steps	S	IP
Know safety procedures in relation to equipment	S	CM
Develop alternatives to reading instruction	I	IP
Learn how to change written material into other modes of instruction	S	II
Accept personal and situational criticism from EMRs without antagonism		Non C
Look objectively at personal prejudices and understand their influences on behavior		Non C
Analyze interpersonal and personal-environment situations without request from or aid of the EMR	S	EA
Deal effectively with highly emotional situations such as student-student, student-school, student-home, or employer	I	CG
Develop positive attitudes toward working on a team	I	CG
Develop cooperation with other departments	I	CL

Taxonomic Classification of the Unique Characteristics
from the Andreyka, Blank, and Clark Handicapped Component Study

Competency	Level	Role Function
Prepare a monthly/quarterly newsletter.	S	PR
Publicize the purpose of Vocational Education for the handicapped.	G	PR
Plan a "show day" or an open house.	I	PR
Report a student's progress to parents or guardians.		Non C
Organize committee and panels to work on group topics.	S	CM/II
Utilize behavior modification techniques and Adlerian methods.	S	CG/CM
Present information using a subject matter expert.	S	II
Assist students in developing an awareness of economics in their daily lives.	I	IP/II
Motivate students.	G	CG/CM/II
Assist students in developing reading, arithmetic, spelling and writing skills.	I	IP/II
Provide learning materials that avoid abstractness.	S/I	II
Meet the needs of disadvantaged students with handicaps.	G	IP/CO/II/AS CG/CM
Assist students in developing wholesome leisure activities.	I	EX
Organize and operate an industrial arts club.	S/I	EX
Participate in workshops to compile and discuss ideas and student needs.		Non C
Develop units of instruction for teaching the handicapped.	I	IP
Use budgeting, purchasing and inventory procedures.	I	AS/RA
Maintain equipment.	I	CM
Maintain current student records.	S	RA
Plan optional learning activities for the handicapped.	I	IP

Andreyka, Blank, and Clark Handicapped Component Study (Contd.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Conduct a student follow-up study.	I	EA/CG
Develop on-the-job training programs.	I	CO/IP
Conduct team teaching.	S/I	IP/CL/II
Evaluate overall goals, content, and human and material resources.	I/G	EA
Develop long-range plans for incorporating the handicapped student into the public school Vocational Education program.	S/I	AS
Work with teachers in related fields in planning correlated and joint learning requirements and experiences.	S	CL
Write performance objectives for handicapped students.	S	IP
Write lesson plans for teaching the handicapped.	I	IP
Design valid and reliable measurement instruments.	I	EA
Keep abreast of new trends and techniques in teaching the handicapped.	I/S	IP/II
Organize student vocational organizations.	I	EX
Relate instruction to the world of work.	G	II/IP
Recommend a Vocational Education program for the handicapped student based on the needs of the community.	S	AS
Investigate apprenticeship programs and requirements.	I	CO
Identify needs, interests of the handicapped student.	S	EA
Use sound principles of public speaking.		Non C
Involve the local community in activities for the handicapped.	I	CL/PR
Establish communications with potential employers of the handicapped.	G	CO/PR

Andreyka, Blank, and Clark Handicapped Component Study (Contd.)

<u>Competency</u>	<u>Level</u>	<u>Function</u>
Construct a daily assignment sheet for class activities.	S	II
Group students according to ability.	S/I	IP/CM/II
Provide bilingual instructional materials for students with language barriers.	S	IP/II
Sequence training programs for the handicapped student.	S/I	IP/II
Assist students in developing the ability to accept supervision.	S	CG
Utilize standardized as well as teacher-made tests.	G	EA
Select and obtain instructional materials prepared for handicapped students.	I	II/IP
Evaluate program materials periodically.	S	CL
Evaluate new materials and ideas designed for handicapped students.	S	CL
Evaluate student performance according to instructional objectives.	I	EA
Assist in identifying School Vocational Education purposes and goals for the handicapped student.	S/I	AS
Use parent counseling and involvement.	I	CG
Compare occupations in relation to job description, required training, qualifications and employment opportunities.	I/S	IP/CO
Collect occupational data which considers the handicapped.		Non. C
Apply research in Industrial Arts.	G/I	II/IP
Assist the handicapped student in viewing his/her assets and limitations realistically.	S	CG
Become proficient in the use of sign language if there are deaf students in the classroom.	S	BF/II/CM
Demonstrate objectivity and sensitivity.		Non C

Taxonomic Classification of the Unique Competencies
from the Griffin, Clellan, Pynn, Smith, and Adamson Study

Competency	Level	Role Function
Plan an operating budget proposal for consumable supplies, services, and materials needed in the program	S	AS
Plan for performance objectives in three domains: cognitive, psychomotor, and affective.	I	IP
Develop curriculum on social behavior, family and home skills (Health, safety, grooming, family living, community living)	I	IP
Inform parents of their responsibilities	I	IP
Identify the personal, social, and academic competencies required for successful performance in a variety of occupations	I/S	IP
Develop a process and procedure for student selection and orientation	I	AS
Incorporate business and industrial manuals into the curriculum	S	IP
Evaluate specified recording systems	S	EA
Develop curriculum on functional academics	G	IP
Sequence tasks to conform with the learning styles, learning pace and inferred learning potential of students	S	IP
Identify field sites and arrange guided field experience	I	II/IP
Plan alternative learning activities for the handicapped	I	IP
Plan course content, design instructional materials and implement activities that are appropriate to the needs and interests of the individual student	I	II/IP
Modify and/or construct materials appropriate to specific objectives and evaluate the effectiveness of material	I	II/IP
Provide learning materials that are not abstract in nature	I/S	II/IP
Tentatively identify student's preferred learning style	S	EA

Griffin, Clellan, Pynn, Smith, and Adamson Study (Contd.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Devise a filing system for maintaining student evaluations	S	RA
Maintain a record of safety instructions presented in compliance with safety laws and regulations	S	RA
Maintain a record of individual work hours and work progression of on-the-job training	S	RA
Maintain a system for recording attendance	S	RA
Construct a system of reporting student progress to students, parents, and employers.	S	AS
Organize instructional environments that develop exploratory behaviors	I/S	II
Develop and conduct a program that will emphasize the multicultural nature of the society	I	II/IP
Define probable post-school vocational activities when developing long-range curricular objectives	I/S	IP
Employ least restrictive environment criteria as a measure for integration	I	AS
Use mainstreaming techniques for integration of handicapped students in the regular classroom	I/S	II
Correlate units of instruction with other subject areas	I	IP/II
Provide bilingual instructional materials for non-English speaking students	S	II
Update the program in terms of current research	I	II/IP
Establish a plan for continuing professional in-service education	S	AS
Support professional organizations through membership and attendance at meetings		Non C
Use community resources to plan curricula for special needs learners	I	IP
Analyze a student's interaction with peers, teachers, parents	S	EA
Assist the student in interpreting his own behavior	S/I	CG

Griffin, Clellan, Pynn, Smith, and Adamson Study (Contd.)

Competency	Level	Role Function
Develop a unit of instruction using a multisensory activities checklist	S	IP
Develop alternative modes of presentation for repetition of content	I	IP
Modify courses for the needs of handicapped students by use of special materials, additional safety instruction, demonstration of skills, breaking tasks into small steps, allowing adequate time to complete assignments	I	II/IP
Modify a lesson plan based on information from a pretest	S	IP
Assist with student problems by working cooperatively with agencies such as the health and welfare services, vocational rehabilitation, mental health department, and medical personnel	S	CL
Develop curriculum on consumer education	I	IP
Develop a unit plan of instruction	I	IP
Establish a system for repairing and servicing tools and equipment	S	CM
Maintain an inventory of vocational supplies, materials, tools, and equipment assigned to the classroom and laboratory	S	RA
Evaluate the appropriateness of resources: primary (e g , tests, journals), secondary (ERIC, card catalogs, educational and psychological indices), and people - for solving educational problems.	I	EA
Compile a list of supplies, materials, and equipment needed for the academic year.	S	AS
Write lesson plans that identify specific outcomes, designate methods, specify media, and provide for evaluation	I	IP
Develop curriculum experiences related to special needs students which involve various tools, materials, machines, and industrial or vocational processes.	I	IP

Griffin, Clellan, Pynn, Smith, and Adamson Study (Contd.)

Competency	Level	Role Function
Maintain anecdotal records and a personal data file on each student	S	RA
Develop criteria for selection of materials	I	IP/AS
Involve students in instructional planning	S	II/IP
Incorporate occupational standards of performance into vocational instruction	I	II/IP
Confer with student and parents regarding the student's educational development	S	CG
Speak to school and community groups on the vocational education program	S	PR
Coordinate instructional objectives for individual students with other teachers, therapists, counselors, and so forth	S	CL
Break down long-range educational goals into sequence of immediate goals	S	IP
Identify educational and behavioral goals in terms of student handicap and disadvantage	S	IP
Prepare a capital outlay budget proposal for new equipment needed in a vocational course	S	AS
Arrange for the storage and security of laboratory supplies and equipment	S	CM
Make models of unavailable learning equipment		Non C
Develop objectives in terms of entering behaviors of students	S	IP
Establish a procedure for attending to the first-aid needs of students	S	CM
Recommend reference books and periodicals related to vocational education for the handicapped that should be added to the school and classroom libraries.	S	AS
Identify resources and resource people	G/I	IP
Establish policies and procedures for job placement	I	Co

Griffin, Clellan, Pynn, Smith, and Adamson Study (Contd.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Assess the ability of the student to modify his or her behavior	I	EA
Compare the behavioral outcomes of instructional efforts with stated long-term and short-term goals	S	EA
Evaluate particular teaching strategies and processes as related to individual pupil performances	I	EA
Diagnose student needs within a vocational framework which is consistent with facilities available and occupational opportunities	S	EA
Develop curriculum on employment instruction (applications, interviews, using employment services, taking tests).	I	IP
Administer and interpret a vocational interest survey	I	EA
Administer and interpret a vocational aptitude test	I	EA
Use the services and acquisition lists of media and materials centers	S	IP
Match commercial materials to specific instructional objectives	S	IP
Conduct follow-up activities on former students and provide assistance when necessary	I	Co
Practice alternate methods for dealing with students exhibiting inappropriate behaviors	I	CM
Use assessment information as a basis for specifying behavioral objectives	I	IP
Organize student vocational education organizations	I	EX
Record student behavior while instructing	S	EA
Evaluate a student at a training station	S	EA
Make an evaluation using anecdotal records	S	EA
Construct a performance test	G/I	EA
Develop learning packets for topics	I	IP

Griffin, Clellan, Pynn, Smith, and Adamson Study (Contd.)

Competency	Level	Role Function
Construct a daily assignment sheet for class activities	S	IP
Participate in experimental and other data collection research activities	S	AS
Critically evaluate research in terms of clarity of stating problem, design, data analysis, utilization potential in the instructional setting	S	EA
Carry out procedures for acquiring the consumable supplies and materials needed for the program	S	AS
Prepare purchase orders for approved vocational equipment and supplies		Non C
Apply for a mini-grant or exemplary funds to carry out a research project	S	AS
Prepare an observation form for evaluating laboratory performance. Use a descriptive or graphic rating scale	S	EA
Evaluate student projects by the following criteria: appropriateness of materials, workmanship, correspondence to plans, accuracy of measurements, finish.	I/S	EA
Assess pupil lab performance by the following criteria: speed, accuracy, discrimination (proper tools, equipment, movements), economy of effort, timing, intensity, strokes, turns, pressure), coherence	S/I	EA
Devise a system for evaluating instructional materials	S	EA
Record student behavior by use of at least two different systems	S	EA
Evaluate classroom interaction by use of the Transaction Analysis Matrix or the Flanders Interaction Analysis Matrix	S	EA
Construct pre- and post-tests for a lesson	S	EA
Record a specific behavior for a behavior modification program	S	EA
Evaluate classroom activity with a time-sampling recorder	S	EA
Develop a work sample test	S	EA

Griffin, Clellan, Pynn, Smith, and Adamson Study (Contd.)

Competency	Level	Role Function
Provide counseling that will help the handicapped student to develop a positive self-concept regarding work and career decision-making	S	CG
Able to reduce parental anxiety, ease parental guilt feelings	S	CG
Present information to students on occupational opportunities; include all occupational clusters offered in vocational education labs	S	CG
Assist students in developing good study habits	I	CG
Assist students in the ability to accept supervision	S	CG
Develop learning materials relevant to students' entering behaviors	I	IP
Develop concrete learning experiences	I	IP
Develop computer-assisted programs	S	IP
Develop curriculum on local geography (maps and transportation)	S/I	IP
Develop curriculum on form completion (bank, tax, insurance)	S/I	IP
Develop curriculum on shop-related instruction (measurements, concepts, terms)	S/I	IP
Refer students to private and public personnel agencies for occupational and educational information	S	CL
Refer students to guidance counselor and other specialists	S	CL
Supply guidance counselor with performance data about students	S	CL
Arrange with the guidance and vocational rehabilitation counselor for administration and interpretation of personality, aptitude, and interest tests for specific students	S/I	CL
Interpret occupational tests and inventories to students	S	EA
Develop microfiche lessons	S	IP

Griffin, Clellan, Pynn, Smith, and Adamson Study (Contd.)

Competency	Level	Role Function
Administer and utilize the results of appropriate diagnostic tests	G	EA
Contact reading resources and publishing houses	S	IP
Formulate and conduct an evaluative research project with respect to an instructional problem	I	EA
Identify needs and interests of the handicapped student	I	EA
Select and/or develop appropriate, valid, and reliable assessment instruments	I	EA
Conduct a program review	I	EA
Use media for public service announcements	S	PR
Develop public relations literature	I	PR
Enter student projects in local and district exhibition fairs	S	PR
Recognize and plan for special instructional problems associated with different rates of development	I	IP
Develop, or assist in the development, an individualized educational program for each student, consistent with the requirements of PL 94-142	S	IP
State educational goals so that their attainment is measurable and then measure attainment	I	EA/IP
Use results of such vocational interest and aptitude tests as the Ohio Vocational Interest Survey and the General Aptitude Test Battery to design classroom instruction	S	IP
Construct a written test using: drawings, diagrams, true-false, multiple-choice, and matching items	I	EA
List and sequence all the necessary sub-tasks which, when the student has mastered them, will enable him to perform specific objective tasks	S	IP
Identify student personality patterns	I	EA
Provide vocational guidance and counseling	G	CG

Griffin, Clellan, Pynn, Smith, and Adamson Study (Contd.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Develop instructional materials that require the use of: spirit duplicator, mimeograph machine, photocopier, Ektagraphic camera set, videotape recorder, orator or primary typewriter, language master, 35mm projector, filmstrip projector, opaque projector, overhead pro- jector, 16mm motion picture projector, filmloop pro- jector, videotape projector, cassette recorder, bulletin board, exhibit, models.	I	IP
In selecting and designing materials for handicapped students, consider special visual directions, diagrams for operating equipment, labels, use of colors, and other guides as needed to improve communication.	I/S	II/IP
Create instructional sequences based on task analysis.	S	IP
Understand prescribed job stations and task analyze the skills and related information needed for a variety of jobs	I	IP
Write job analyses that include: aptitude profile interest rating, temperament conditions, working conditions, physical requirements, job descriptions, task analysis	I	IP
Design teaching strategies in behavioral frameworks that will implement achievement of stated objectives based upon diagnosed strengths and weaknesses	S/I	IP
Design curriculum modules that relate to the multicultural population of the school and which provide ways for all pupils to gain positive identification and self-image	I	IP
Establish criteria for selecting a diversified occupational advisory committee	S	AS
Organize an advisory committee made up of vocational educa- tors, special educators, media specialists, curriculum specialists, administrative personnel, representatives of business and industry, representation by vocational rehabilitation agencies, and parents	S	AS/CL
Identify the roles and functions of the advisory committee	S	AS/CL
Consult the advisory committee to obtain information con- cerning its members' expectations of the vocational education program.	S	AS/CL

Griffin, Clellan, Pynn, Smith, and Adamson Study (Contd.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Maintain liaison with union Officials, employers, business and trade groups	I	CL/PR
Invite local business and industry representatives to class for discussion and demonstration	S	II/PR
Conduct an employer appreciation program	S	PR
Obtain informal feedback on the vocational education program through contacts with individuals in the community and school.	S	PR
Participate in an open house to familiarize members of the school and community as to activities of the vocational education program		Non C
Publicize the purposes of vocational education for the handicapped	G	PR
Develop a working knowledge of unskilled, semi-skilled, and skilled jobs in the community	S	Co
Identify entry level jobs in the community	S	Co
Involve the family as a primary source of student reinforcement	I	CG/CL
Obtain information from parents relative to their expectations of the vocational education program	S	CL
Devise a system for maintaining occupational information and opportunity data for use by students	S	CG
Identify techniques for relating to individuals and groups	I	CG
Identify counseling techniques	G	CG
Conduct a conference for counseling a student	S/I	CG
Encourage two-way communication during conference with student	S	CG
Conduct group counseling sessions	I	CG
Recognize potential problems of students	I	CG/IP/II
Devise means of determining student attitudes	I	EA

Griffin, Clellan, Pynn, Smith, and Adamson Study (Contd.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Aid student in accepting his handicap	S	CG
Assist student in viewing his or her assets and limitations realistically	S	CG
Encourage students to discuss career aspirations	S	CG
Carry out instructional sequencing of occupational skills based on occupational task analysis	S	II
Allow students to progress at an individual rate		Non C
Recycle students who do not reach the necessary mastery level for attainment of objects	S	II
Use remedial techniques that will reinforce lesson content for students who need additional help	I	II
Use remedial techniques to develop basic skill areas in relation to vocational	I	II
Apply nonverbal techniques to enhance communication	I	II
Modify verbal presentations according to language comprehension ability of students	S	II
Become proficient in the use of sign language if there are deaf students in the class	S	IP/BF/II
Use the student's personal ideas and interests as teaching tools	S/I	IP/II
Form instructional groups based on pretest assessment of students	S	IP/II
Adopt follow-up activities that take into account individual skills within the group.	I/S	II
Set up a carrel for individualized instruction	S	CM
Provide opportunities for independent study	I	IP/II
Demonstrate attention-getting skills	I/S	II
Give prompts and cues that will lead students to give correct responses	S	II

Griffin, Clellan, Pynn, Smith, and Adamson Study (Contd.)

Competency	Level	Role Function
Write realistic learning and behavior contracts with students	S	II/CM
Devise an activities schedule	S	IP
Design and organize the physical plan of the classroom/lab setting	S	CM
Arrange layout of vocational laboratory to stimulate occupation environments	S	CM
Provide approved safety apparel and devices for vocational students assigned to hazardous equipment	S	CM
Maintain a list of classroom safety rules	S	CM
Formulate with students acceptable standards of behavior for classrooms and laboratories	S	CM
Form instructional groups based on pretests	S	IP/II
Develop a group progress wall chart for monitoring individual and class achievement	S	RA/CM
Develop an incentive award system	S	CM
Devise and implement student check-out procedures for tools, supplies, and equipment used in the vocational laboratory (Simulate procedures used in local job stations).	S	RA/CM
Direct students in a system of cleaning and maintaining the laboratory	S	CM
Derive classroom rules in a democratic manner and maintain them	S	CM
Initiate specific action for resolution of learning behavior problems	S	II/CM
Use behavior modification techniques and Adlerian methods	I/S	CM
Employ the project method of learning	S	IP/II
Demonstrate manipulative skills, concepts, and principles	S/I	II
Illustrate with model	S	II

Griffin, Clellan, Pynn, Smith, and Adamson Study (Contd.)

Competency	Level	Role Function
Identify techniques for teaching non-readers.	S	IP/II
Identify emotional factors that affect classroom environment.	S	CA
Identify basic terminology associated with industrial education in order to facilitate understanding.	S	BF
Demonstrate a knowledge of vocational legislation, vocational funding, and vocational advisory committees.	S	BF
Understand essential provisions made for education and employment of the handicapped under existing state, local, and federal law.	S	BF
Identify and use state and federal guidelines for vocational education of the handicapped.	I/S	IP
Understand legal aspects of occupational training and work experience (workmen's compensation, wage, and hour regulations, and so forth).	S	BF
Understand the teacher's legal responsibility with respect to liability in the use of common tools.	S	BF
Have a working knowledge of due process procedures.	S	BF
Demonstrate knowledge of several theoretical instructional systems that are used to design programs for special needs of students.	S	IP/BF
Translate learning theories in terms of their functional relationship to instruction.	I	IP/II
Remain current on new trends and techniques in teaching the handicapped.	I/S	IP/II
Remain current in new trends and techniques in vocational education.	I/S	IP/II
Remain current on trends in business and industry.	I/S	IP/BF
Use educational television programs	S	II
Use a subject matter expert to present information	S	II
Provide success-producing stations for individual students	S	IP/II

Griffin, Clellan, Pynn, Smith, and Adamson Study (Contd.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Present information via media: demonstrations, exhibits, videotape, cassette, recorder, 35mm slides, motion pictures, film loops, programmed materials, chalkboard, flannel board, flip chart, lecture, role playing, simulations	I	II
Use auto-tutorials	S	II
Use common hand tools, machiner, equipment, and materials appropriate for use with special needs students	S	IP/II
Establish and demonstrate procedures for the safe use, storage and maintenance of tools and equipment	S	II
Use job sample and work simulation experiences	S	II
Use a variety of questioning techniques: recall, synthesis, application of principle, judgment	I	II
Implement a token economy system for classroom management	S	CM
Elicit student feedback on information presented	I	II
Establish a student tutoring program	S	IP/II
Use reinforcement techniques to change and maintain behaviors	I	CM
Stimulate learning through brainstorming, buzz groups, and question box techniques	S	II
Institute discussion and activities that will encourage deductive thinking	I	II
Direct student study of texts and references	S	II
Direct students in applying problem-solving techniques	S	II

Taxonomic Classification of the Unique Competencies
from the Brolin and Brolin Study

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Design instructional materials to fit specific teaching objectives.	I	IP
Evaluate the appropriateness and effectiveness of locally prepared instructional materials.	S	EA
Establish contact with state rehab agencies, mental health clinics, social service agencies.	S	CL
Administer vocational evaluation tests, including work samples and formal evaluation devices.	I	EA
Write clear and accurate vocational evaluation reports and assessment profiles.	S	EA
Correlate types of maladaptive behavior, cause, and therapy with the social, emotional, and intellectual functioning of the student.	I	EA
Organize a work-study program.	G	IP/Co
Teach daily living skills.	I	II
Understand the effects and implications on counseling and psychotherapy with retarded persons.	S	BF/CG
Understand the theories, issues, problems, models and processes of vocational evaluation.	I/S	BF/EA
Understand the work habits, attitudes, and personal skills necessary for successful employment.	I/S	BF
Utilize the unit method of instruction.	S	IP/II
Utilize the prescriptive method of instruction.	S	IP/EA/II
Utilize the resource consultant method of instruction.	S	AS
Understand the characteristics and problems of various exceptional students found in school program.	S	BF
Possess a basic knowledge about mental retardation.	S	BF
Understand the current and historical educational philosophy and programming for the retarded.	S	BF
Understand how to guide the learning and development of abnormal children.	S	BF

Brolin and Brolin Study (Contd)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Understand the basic definitions, classification systems, and statistics of mental retardation.	S	BF
Understand the causes, types, and characteristics of retardation.	S	BF
Understand the problems and feelings of parents of the retarded.	S	BF
Understand current and innovative issues and trends in education of the retarded.	S	BF
Understand the effects and implications of cultural-familial retardation.	S	BF
Understand the effects and implications of institutionalization and non-institutionalization.	S	BF
Understand the effects and implications of segregated vs. integrated programs.	S	BF

Taxonomic Classification of the Unique Competencies
From the Phelps Study

Competency	Level	Role Function
Use the comparative analysis method with the conference method.	S	II
Use the comparative analysis method with the demonstration method.	S	IP, II
Use the comparative analysis method with the diagnostic method.	S	EA
Use the comparative analysis method with the directed observation method.	S	EA
Use the comparative analysis method with the discussion method.	S	II
Use the comparative analysis method with the drill method.	S	II
Use the comparative analysis method with the experimentation method.	S	II
Use the comparative analysis method with the field experience method.	S	IP, II
Use the comparative analysis method with the field trip method.	S	II
Use the comparative analysis method with the group work method.	S	II
Use the comparative analysis method with the lab experience method.	S	IP, II
Use the comparative analysis method with the lecture method.	S	IP, II
Use the comparative analysis method with the manipulative method.	S	II
Use the comparative analysis method with the modeling and imitation method.	S	II
Use the comparative analysis method with the problem-solving method.	S	IP, CG, II
Use the comparative analysis method with the programmed instruction (workbook, mechanical or electronic device) method.	S	IP, II

Phelps Study (cont.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Use the comparative analysis method with the project method.	S	IP, II
Use the comparative analysis method with the reading and research method.	S	II
Use the comparative analysis method with the recitation method.	S	II
Use the comparative analysis method with the role-play method.	S	CG, II
Use the comparative analysis method with the seminar method.	S	IP, II
Use the comparative analysis method with the sensitivity training method.	S	CG
Use the comparative analysis method with the shopwork method.	S	II
Use the comparative analysis method with the skill practice method.	S	II
Use the comparative analysis method with the behavior contracting method.	S	CM
Use the comparative analysis method with the learning contract method.	S	CM, II
Use the comparative analysis method with the token reinforcement method.	S	CM
Use the comparative analysis method with the overlearning method.	S	II
Use the comparative analysis method with the (untimed) accuracy method.	S	II
Use the comparative analysis method with the (uncorrected) speed method.	S	II

Taxonomic Classification of the Unique Competencies
from the Raleigh, N.C. Study

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Awareness of the legislative mandates and state/local boards of education policies relative to identification, referral, screening, evaluating and placing students with special needs.	S	AS
Ability to diagnose specific learning needs as they relate to special vocational education programs for the disadvantaged/handicapped student.	I	EA
Ability to coordinate school/community resources for establishing special vocational education programs.	G	Co
Develop a job analysis.	I	IP
Skill in maintaining adequate records for documenting program results and/or justifying program continuation.	I/S	RA
Ability to develop a special plan abstract for the local plan of vocational education.	I	AS
Awareness of the resources for planning special vocational programs.	I/S	IP/AS
Knowledge of planning and program organization as it relates to special vocational education programs for the disadvantaged/handicapped.	I	AS
Skill in designing a continuous program of evaluation.	G	EA
Knowledge of the criteria for selecting and using specific evaluation techniques.	I	EA
Select appropriate instructional materials.	G	IP/II
Determine student interests and needs.	I	EA/CG
Develop instructional objectives.	I	IP
Developing "homemade" work samples.	E	EA
Developing and using instructional materials.	G	IP/II
Recognizing sex bias.		Non C
Distinguishing between "sex bias" and sex discrimination.		Non C
Develop a vocational education instruction program.	G	IP

Raleigh, N.C. Study (Contd)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Awareness of the varied uses of evaluation data.	G	EA
Completing an evaluation report.	I/S	EA
Comprehension of the relation of "Evaluation" to planning and implementation; esp. objectives and instruction.	S	EA
Orientation to standardized test.		Non C
Basic principles of tests and measurements.		Non C
Interpreting work evaluation data.	I	EA
Conducting vocational evaluation interviews.	S	EA
Knowledge of federal/state legislation and administrative policy in special vocational education programs.	S	BF
Knowledge of basic philosophy and objectives of special vocational education programs.	S	BF
Knowledge of the three basic approaches to special vocational education programs.	S	BF
Knowledge of the special characteristics of disadvantaged/ handicapped students as specified in vocational education legislation.	S	BF
Volunteer input to textbook selection committees regarding the instructional needs of re-entry students.	S	IP
Become involved and participate in all conferences and in-services that concern the mainstreaming.		Non C
Orientation to the major evaluation systems.		Non C
Knowledge of the rationale for evaluation.	G	EA
Knowledge of evaluation terminology.	G	BF
Understanding vocational evaluation.	I	EA
Designing a vocational evaluation process.	I	EA

Raleigh, N.C. Study (Contd)

Competency	Level	Role Function
Using the <u>Dictionary of Occupational Titles</u> (D.O.T.).	S	CG
Using the <u>Occupational Outlook Handbook</u> .	S	CG
Defining problems.		Non C
Developing problem statements and specific objectives.	I	IP
Life planning skills.		Non C
Processes in problem solving.		Non C
Developing a vocational/career plan.	I	IP
Group processes.		Non C
Expediting group discussion.	I	CG/II
Giving and receiving feedback in group situations.	S	CG/II
Achieving self-exploration in group situations.	S	CG
Evaluating group processes.	I/S	EA
Techniques of counseling girls and women with special needs.		Non C
Knowledge of a systematic identification and placement procedure for use in special educational programs.	S	AS
Use basic skills.		Non C
Developing a helping relationship.		Non C
Feedback skills.		Non C
Self-disclosure.		Non C
Vocational/Career choice theories.		Non C

Taxonomic Classification of the Unique Competencies
from the Krupp, Hritz, and Thrower Study

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Assist the student in the solution of problems related to starting and continuing on-the-job training.	S	CG
Organize and select individualized program instruction for each student.	S	II/IP
Specify the long-range facility, equipment, and supply needs for the industrial education program.	S	AS
Determine the reasons students drop out of the programs.	I	AS
Plan for step-by-step development of social controls.	I	CM
Select, administer and educationally interpret the results of standardized diagnostic and achievement tests.	G	EA
Prepare instructional materials (both hard and soft copy) using a variety of reproduction techniques.	I	II/IP
Design a student self-evaluation instrument.	S	EA
Diagnose learning deficiencies using immediate observation.	S	EA
Maintain liaison with union officials and employers.	S	Co
Sequence performance goals (objectives) for a course.	S	IP
Identify strengths and weaknesses of the student.	G	EA
Plan the overall objectives and curricula for the total school program.	G	AS
Have supervised laboratory experiences with exceptional children as one means of determining the candidate's maturity for work with exceptional children.		Non C
Develop alternative modes for repetition of content.	I	IP
Plan a variety of vocational experiences at both observation and involvement levels.	I	IP
Design, construct and test individual projects.	I	II/EA/IP
Plan individualized instruction according to ability of students.	I	IP

Krupp, Hritz, and Thrower Study (Contd.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Write a lesson plan that identifies specific outcomes, designates methods and media, and provides for evaluation.	I	IP
Write behavioral objectives for all assignments.	S	IP
Adapt follow-up activities from a group presentation to individual skills within the group.	I/S	IP/II
Match a student's unique characteristics with an appropriate training station.	S	IP/II
Plan methods of giving attention to individual questions or requests for help.	S	IP
Involve students in planning a unit.	S	IP/II
Develop teacher-made materials for specific instructional situation.	S	IP
Construct tests based on pre-planned content and outcomes.	S	EA
Assist in the development of policies regarding school-community relations.	G/I	AS
Assess educational adequacy of the training stations' facilities and equipment.	S	EA
Have the ability to develop and implement prescriptive programs based on diagnostic findings.	I	II/IP
Maintain good working relationships with the training station personnel.	S	Co
Design evaluation techniques that incorporate a variety of types of performances.	G	EA
Acquaint prospective students and their parents with the purposes, activities, and values of the student industrial education organizations.	I	PR
Plan instructional sequences in laboratory safety.	S	IP
Identify prospective cooperating employers to provide on-the-job training stations.	S	Co
Demonstrate use of diagnostic procedures to identify the learning difficulties of the exceptional child.	I	EA

Krupp, Hritz, and Thrower Study (Contd.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Express a philosophy compatible with the objectives of industrial education.		Non C
Express a philosophy relevant to the basic goals of the teaching profession.		Non C
State a personal philosophy about theories related to learning.		Non C
State a philosophical position which is in keeping with one's personal and professional abilities and limitations.		Non C
Interpret students' evaluation of instruction.	S	EA
Provide real-life experiences in daily living.	G	IP/II
Relate the instruction of health habits to real-life situations.	S	IP/II
Plan for participation of pupils in setting standards of conduct.	S	CR/IP
Affiliate with appropriate professional groups, and create an awareness of the referral agencies available for aid to exceptional children.		Non C
Develop a grading system for performance for related instruction, laboratory instruction, and/or on-the-job instruction.	I	EA
Plan example lessons in which Structure or Divergency is reinforced in the learner.	S	IP
Evaluate students:	S	EA
products according to performance standards of the occupations.		
Interpret occupational tests and inventories to students.	S	EA
Identify a prospective student on basis of selection criteria and data.	S	AS
Interview students and parents to obtain student interest and aptitude information.	S	EA

Krupp, Hritz, and Thrower Study (Contd.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Organize instructional sequences in content areas: in reading, mathematics, language.	G	IP
Set up a program within existing employment laws.	G	AS
Plan a drill-mastery hierarchy for basic skills.	I	IP
Use self-analysis form to evaluate one's personal and professional abilities and limitations.	S	EA
Sequence a series of tasks from simple to complex.	S	IP
Solicit assistance of the vocational education personnel from the state department in conducting an industrial education survey.	S	CL
Contact state department personnel regarding the steps to be followed in organizing a student organization.	S	EX
Consult the Chamber of Commerce to identify area employers to be contacted in an industrial education survey.	S	CL/PR
Plan inservice programs for teachers.	I	AS
Develop plan for a training workshop to assist on-the- job instructors in techniques for teaching student-learners.	S	AS
Prepare a long-range budget which identifies the financial needs of the industrial education program.	S	AS
Plan a program for developing good study habits.	I	IP
Offer instruction in the main divisions of industrial arts subject matter.	I	IP/II
Teach a general unit-type laboratory or shop in one of the main divisions of industrial arts subject matter.	S/I	II
Administer occupational tests relative to student selection and placement.	I	EA
Develop remedial techniques that will reinforce the lesson content for students who need additional help.	I	IP

Krupp, Hritz, and Thrower Study (Contd.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Assist students in advancing within the available degrees in the student vocational organization.	S	EX
Organize a student committee to assess the interest of students in joining student vocational organizations.	S	EX
Plan ways to involve students in clubs, organizations, special events, and course related activities.	S	EX
Obtain approval from the school administration for establishing the students industrial education organization.	S	Non C
Organize a student committee to assess the interest of students in joining the student industrial education organization.	S	EX
Plan for, implement, and supervise activities for a student industrial education organization.	I	EX
Participate in non-instructional school duties, ie. e., cafeteria, homeroom, bus duty, chaperoning, PTA.		Non C
Contact state department personnel regarding the steps to be followed in organizing the student industrial education organization.		Non C
Plan the school-community relations activities for the industrial education program.	I	PR
Accept gifts or donations of supplies and equipment for industrial education program in accordance with school policy.		Non C
Write letters of recommendations for students.		Non C
Direct student presentations describing activities of the industrial education program.	S	PR/EX
Promote the attainment of the goals and objectives of the teaching profession.		Non C
Serve community needs by contributing professional expertise to civic projects.		Non C

Krupp, Hritz, and Thrower Study (Contd.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u> Non C
Represent the teaching profession as a committee member or delegate to meetings and activities of other professions.		
Possess a knowledge of the history and culture of his country and state as it relates to the social, political, economic, and industrial aspects.	S	BF
Possess a basic understanding of the mental, emotional, social, and physical development from childhood through adolescence for both normal and abnormal youth.	S	BF
Understand the principals of the biological and physical sciences as they relate to man and his environment.	I/G	BF
Be knowledgeable about contemporary health problems and demonstrate the ability to promote safe practices and apply first aid within the school environment.	S	BF/IF/CM
Demonstrate the ability to utilize mathematical concepts as they relate to problems in industrial education and business and social problems.	S	BF
Possess and understanding of principles of good design and their application to the construction and manufacture of industrial products and the utilization of graphic arts equipment and materials as they relate to communications media.	S	BF
Possess an understanding of the general development of civilization and many of humanity's fundamental questions through the study of the classics in religion, philosophy and literature.	I	BF
Describe relationship between mental ability and educational independence of the individual.	I	BF
Know the degree to which mental/physical handicaps affect academic and social learning.	I	BF
Describe current instructional practices and techniques for the handicapped.	I	BF

Krupp, Hritz, and Thrower Study (Contd.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Know the scope and sequence of fundamental skills in mathematics and reading.	I	IP
Know about approved safety apparel and devices for industrial education students assigned to hazardous equipment.	S	CM
Conceptualize various theories of learning.	G/I	BF
Use principles of operant conditioning.	S	CM
Exhibit a knowledge of students based on learning theory.	I/S	BF
Analyze an instructional task into component parts.	S	IP
Assess occupational experience reports with student to plan future instruction.	S	EA
Arrange for the local office of the U.S. Employment Service to administer and to interpret the General Aptitude Test Battery.	S	CL
Develop communication strategies to explain and promote industrial education in the school and community.	I	PR
Assist the on-the-job instructor with development of teaching techniques during visits to the training stations.	S	Co
Assess the relevancy of the industrial education course offerings.	S	EA
Develop industrial courses by clustering and sequencing related tasks.	S	IP
Show knowledge of the reference materials and literature related to reaching the exceptional student.	S	BF
Provide for group decisions, or recommendations, on proposed programs.	I/S	AS
Inform the administration of daily coordination itinerary.	S	Co

Krupp, Fritz, and Thrower Study (Contd.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Assess the safety provisions of the facilities and equipment of training stations.	S	EA
Establish criteria for evaluating training station of an employer.	I	EA
Counsel students.	I	CG
Demonstrate an ability to counsel parents.	I	CG
Confer with students and parents at home and in school, regarding the student's educational development.	S	CG
Indicate available industrial education programs.	S	CG
State opposing points of view objectively.		Non C
Plan and conduct wide varieties of learning experiences for individuals and groups.	I	II/IP
Assist students with their problems by working cooperatively with agencies such as the health and welfare services.	S	CL
Refer students to qualified personnel agencies for occupational and educational information.	S	CL
Use other resources in the school environment.	G	II/IP
Maintain working relationships with the school	G/I	CL
Assist students in securing and in filling out applications for jobs, scholarships, educational loans or college admission.	S	CG
Know the provisions made for the maladjusted or handicapped under existing local, state, and federal law.	S	AS
Establish communications with employer representatives who will be involved in an industrial education survey.	S	Co
Persuade labor representatives to participate in education survey.	S	Co

Krupp, Hritz, and Thrower Study (Contd.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Correlate unit content with on-the-job and/or laboratory experiences.	S	IP
Have ample opportunities to observe institutions and facilities concerned with the education, health, and welfare of all types of exceptional children.		Non C
Evaluate the quality of the on-the-job training received by the student.	I	EA
Evaluate work competencies.	G	EA
Develop a systematic training plan with the on-the-job instructor.	S	Co/IP
Obtain suggestions from the on-the-job instructor to guide the selection of related class instruction.	S	IP
Examine the student's progress records to determine future on-the-job training experiences and related classroom assignments.	S	IP
Obtain informal feedback on the vocational program through contacts with individuals in the school and community.	I/S	EA/PR
Establish criteria to evaluate qualifications of prospective on-the-job instructors.	S	AS
Encourage the on-the-job instructor to follow the progression of experiences for the student-learner outlined in the training program.	S	Co
Maintain working relationships with the school supporting staff through cooperation and mutual effort.	I	CL
Prepare and analyze the long-range program, purpose and objectives for industrial education in the school.	I	AS
Expand instruction for student on the basis on of information obtained from employers on new technology.	S	II/IP

Krupp, Hritz, and Thrower Study (Contd.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Administer subject matter diagnostic tests.	I	EA
Evaluate the student's personal traits and behavior characteristics on the job.	I	EA
Evaluate student's personal traits and characteristics on the job.	I	EA
Develop employ and analyze reinforcement contingencies.	I	IP/II/CM
Plan for the development of individual pupil interests.	I	IP
Provide consultant services to local business and industry.	I	Co
Analyze occupations with assistance of employers and labor representatives.	I	IP/Co
Maintain liaison with employment agencies and the community.	S	Co
Arrange with a union to make contract provision for students.	S	Co
Develop a cooperative training agreement between student-learner, parent, school, and cooperating employer.	S	Co
Set up specific plan for parent/volunteer tutoring in problem areas.	S	IP
Recommend reference books and periodicals related to industrial education that should be added to the library.		Non C
Orient the advisory committee members to their role and function.	I/S	AS
Use the advisory committee to help to improve related instruction and on-the-job training.	S	IP/Co
Use the advisory committee for information concerning their expectations of the industrial program.	S	PR
Devise a plan of activities for a survey staff to follow in conducting an industrial education survey.	S	IP

Krupp, Hritz, and Thrower Study (Contd.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Use the advisory to help plan analysis of an occupation.	S	IP
Organize a steering committee to assist in the pre-planning activities of an industrial education survey.	S	AS
Identify the role and function of the advisory committee.	I	AS
Plan the annual agenda to be considered by the advisory committee.	S	AS
Use the advisory committee for help in developing a long-range program plan for industrial education.	S/I	IP
Invite resource persons who can provide consultation service to attend the advisory committee meetings.		Non C
Identify and use a variety of community agencies and resources.	G	IP/II/EA/CG
Establish the criteria for selection of advisory committee members.	S	AS
Know how to obtain administrative approval for organizing and selecting an advisory committee.		Non C
Invite resource persons who can provide consultation service to attend advisory committee meetings.		Non C
Identify the role and function of advisory committees.	S/I	AS
Plan the annual agenda to be considered by advisory committees.	S	AS
Consult the advisory committees in planning an analysis of an occupation.	S	IP
Determine the occupations for which training is to be offered in industrial education programs.	S	BF/AS
Consult advisory committees to obtain information concerning their expectations of industrial education programs.	S	PR
Obtain from the advisory committees information on ways to improve related instruction and on-the-job training.	S	IP

Krupp, Hritz, and Thrower Study (Contd.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Provide for group decisions or recommendations, on proposed programs.	I	AS
Review supervisory evaluation reports for assessing the industrial education programs.	S	AS
Assess the adequacy of the industrial education facilities and equipment relative to technological changes.	S/I	EA
Establish criteria for selection of student.	I	AS/EA
Use instructional hardware, i.e., T.V. , projectors, fixed machines.	I	II
Relate the instruction of basic academic skill to real-life situations.	I	IP/II
Relate the instruction of basic social skills to real-life situations.	I	IP/II
Demonstrate skill in using the basic communication model.	S	BF
Modify directions according to language comprehension ability of student-learners.	S	II
Communicate specific requirements to student.	I	II
Use a variety of techniques for presenting instructional content, including programmed instruction, case studies, symposia, student involvement, problem solving, lecture, demonstration, simulation, independent study, and various A.V. media.	I	IP/II
Establish frames of reference to enable the students to understand a situation from several points of view.	S/I	CG/II
Reward pupil growth other than mastery.	I	II
Move among pupils and confer individually.	S	Non C
Avoid identical, stereotyped demands on maladjusted pupils.	S	IP/II
Recognize and acknowledge student non-verbal clues.	S	II

Krupp, Hritz, and Thrower Study (Contd.)

Competency	Level	Role Function
Apply non-verbal techniques (gestures, facial expressions, silence, etc.) to enhance communications.	I	Non C
Point out pupil errors in solution-oriented fashion.	S	II
Use humor with a relaxed inoffensive effect.	S	Non C
Accent and/or clarify pupil statements in a positive or neutral fashion.	I	II
Develop techniques for classroom interaction.	G	IP/II
Experiment with alternative and/or innovative techniques.	I	II
Obtain administrative approval for conducting an industrial education survey.		Non C
Consult the Chamber of Commerce to identify area employers to be contacted in an industrial education survey.	S	CL/PR
Establish communication with employer representatives who will be involved in an industrial education survey.	S	CL/PR
Persuade labor representatives to participate in an industrial education survey.	S/I	CL/PR
Solicit assistance of the industrial education personnel from the state department and/or university in conducting an industrial education survey.	S	CL/PR
Identify the geographical area in which an industrial education survey will be conducted.		Non C
Organize a steering committee to assist in the pre-planning activities for an industrial education survey.	S	AS
Devise a plan of activities for the survey staff to follow in conducting an industrial education survey.	S	IP
Collect student occupational interest data to identify vocational needs.	S	EA
Analyze occupations with assistance of employers and labor representatives.	S/I	IP
Conduct opinion surveys in the school and community concerning the industrial education programs.	S	PR/EA

Krupp, Hritz, and Thrower Study (Contd.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Assist the cooperating employer in verifying the legality of employing a student-learner in a hazardous occupation.	S	Co
Describe the procedure for a cooperating employer to use in acquiring a federal permit to pay a training wage.	S	Co
Determine federal and state wage and hour classification of the prospective cooperating employer.	S	Co
Conduct termination procedures for on-the-job training for the student-learner when conditions demand it and at the close of a training program.	S/I	Co
Conduct termination procedures for on-the-job training for the student when conditions demand it and at the close of a training program.	S/I	Co
Arrange with a union to make contract provision for student-learners.	S	Co
Obtain reimbursement for the cooperating employer providing on-the-job training.	S	Co
Suggest an industrial education program based on analysis of the vocational education survey.	S	AS
Assist in writing general objectives for courses offered in the industrial education program.	S/I	IP
Supply administrators with data for industrial education reports required by the state department of education.	S	AS
Prepare a capital outlay budget proposal for new equipment needed in an industrial course.	S	AS
Prepare a total budget for operation of an industrial education program.	S	AS
Prepare a budget for estimated travel expense incurred in industrial activities.	S	AS
Obtain reimbursement for the student for allowable training costs such as clothing and tools.	S	Co
Communicate curriculum goals to parents.	I	PR

Krupp, Hritz, and Thrower Study (Contd.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Communicate with prospective and continuing students during the summer.	I	PR
Plan the school-community relations activities for the industrial education program.	I	PR
Serve in a community civic, service or social organization to improve the image of the industrial education program.		NON C
Speak to school and community groups on the industrial education program.	S	PR
Provide displays in the school and the community on the industrial education programs.	S	PR
Conduct an open house to familiarize members of the school and community with activities of the industrial education programs.	S	PR
Present activities of the industrial education program by mass media.	I	PR
Publicize the purpose and objectives of an industrial education survey.	I	PR
Publicize the establishment of the advisory committee, its members, and its functions to the school and community.	I	PR
Describe the occupational standards of performance for each task in an occupation.	S	IP
Write performance objectives in each of the domains of industrial objectives (cognitive, affective, psycho-motor).	S	IP
Review student progress and/or achievement records to assess effectiveness of instruction.	I	EA
Possess competency in individual and group classroom management procedures appropriate to exceptional children.	I/G	CM
Possess knowledge of techniques utilized in behavioral control.	G	CM
Demonstrate empathy for students.		Non C

Krupp, Hritz, and Thrower Study (Contd.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Do more than the position demands.		Non C
Maintain ethical standards expected of a professional educator.		Non C
State opposing points of view objectively.		Non C
Assume responsibilities in a professional manner.		Non C
Devote extra time for improvement of instruction.		Non C
Maintain professional certification through enrolling graduate, extension, and in-service education programs.		Non C
Expand educational background and leadership potential by achieving advanced degrees.		Non C
Demonstrate techniques of introspection, e.g., sensitivity training, etc.		Non C
Possess social skills and attitudes to work effectively with other school personnel in coordinated programs for exceptional children.		Non C
Acquire information from members of the community power structure (e.g., political, social, economic pressure groups) regarding their expectations of the industrial education program.	S	CL, PR
Study community voting results on financial issues affecting the industrial education program to determine community support of the program.	S	PR, AS
Recruit teachers and guidance counselors to participate in conducting an industrial education survey.	S	AS
Keep simulated records of pupil attendance, behavior and achievement.	S	RA
Use a variety of student's progress record forms for on-the-job training and related instruction.	S	RA
Develop simulated records of individual work hours, wages, and work progression on on-the-job training.	I/S	RA
Supply the guidance counselor with performance data about students.	S	CL

Krupp, Hritz, and Thrower Study (Contd.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Structure a filing system for records, reports, report forms and instructional materials used in an industrial education course.	S	RA
Convince an employer to provide a training station for cooperative education.	S	Co
Convince an employer to provide a training station for industrial education.	S	Co
Assist the cooperating employer's personnel in accepting the training status and role of the student.	S	Co
Assist the cooperating employer's personnel in accepting the training status and role of the student-learner.	S	Co
Develop criteria to approve on-the-job training hours and wages for student-learners.	S	Co
Be available to communicate clearly and effectively through the written word and orally.		Non C
Evaluate periodically one's educational philosophy in relation to that held by a majority of other members of the teaching profession.		Non C
Indicate open-ended opinion of the learning abilities of the handicapped.		Non C
Demonstrate flexibility and ingenuity.		Non C
Demonstrate a regard for and an interest in students as individuals.		Non C
Demonstrate restraint under verbal and physical attack.		Non C
Demonstrate empathy and understanding for parents of the handicapped and disadvantaged students.		Non C
Express a philosophy compatible with that of the industrial education staff.		Non C
Maintain good relations with other schools.	G	CL
Involve an advisory committee in conducting an industrial education survey.	S	CL

Krupp, Hritz, and Thrower Study (Contd.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Assist teachers who are new in the system to understand the policies and regulations of the school.	S	CL
Serve as the liaison for an advisory committee and the school administration.	S	CL
Work with other teachers to help students with individual problems.	I	CL
Maintain liaison with community professional, service, fraternal, social, and religious organizations.	S	CL
Work with a team of professionals from the school and/or community on pertinent school problems.	S	CL
Perform all the tasks which would be expected of a journeyman (or similar level of competency) in the occupation.	S	BF
Keep up-to-date with trends and skills in the selected field of study.	S	BF
Understand the types of maturities of exceptionalities among children and youth and their educational relevance.	I	BF
Interpret and apply the philosophy, principles, and methods of industrial arts in elementary, secondary, adult and collegiate schools.	I	IP, II
Possess a fundamental knowledge of the historical development of technology and its impact on man and society.	S	BF
Possess technical competencies in the fields of drafting, electricity-electronics, graphic arts, manufacturing and construction industries, and power and transportation.	S	BF
Understand industrial problems and make independent investigations of the origins and evolution of present industrial conditions.	I/S	BF
Identify new tools and equipment needed in an industrial education course for the academic year.	S	IP, CM
Compile a list of supplies needed for the academic year.	S	IP, CM

Krupp, Hritz, and Thrower Study (Contd.)

Competency	Level	Role Function
Determine the availability of occupational opportunities in and around the community.	I	Co
Obtain information of occupational opportunities.	G	Co
Acquire information from members of the community power structure (e.g., political, social, economic pressure groups) regarding their expectations of the industrial education program.	S	CL/PR
Adapt an existing industrial education survey form to local needs.	I/S	EA
Study community voting results on financial issues affecting the industrial education programs to determine community support of the program.	S	PR/AS
Plan an operating budget proposal for consumable supplies, services and materials needed in an	S	AS
Design a procedure for acquiring the consumable supplies and materials needed in an industrial education course.	S	AS
Prepare purchase requests for book and non-book instructional materials.	S	IP/CM
Prepare purchase request for approved industrial education equipment and supplies.		Non C
Prepare a five-day schedule including individual, small group, and large group instructional time segments.	S	IP
Schedule laboratory equipment for maximum utilization by students.	S	IP/CM
Devise a system for determining and collecting student fees for consumable supplies.	S	RA
Provide an example record of safety instruction presented in compliance with safety laws and regulations.	S	IP/II
Formulate with students acceptable standards of behavior in laboratories.	S	CM
Formulate with students acceptable standards of behavior in laboratories, and maintain those standards.	I	CM

Krupp, Hritz, and Thrower Study (Contd.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Maintain anecdotal records on students.	S	RA/EA
Determine relationships among students through sociometric techniques.	S	EA
Develop a simulated inventory system for industrial education tools, supplies, and equipment assigned to the laboratory.	S	RA
Establish limits firmly and consistently .		Non C
Be able to group children on a variety of parameters.	I	IP/II/CM
Demonstrate knowledge of techniques for maintaining classroom discipline.	G	CM
Demonstrate restraint under verbal and physical attack.		
Identify the elements of both normal and abnormal growth and development at various age levels.	I/S	BF
Develop a personal philosophy about "how man relates to his environment".		Non C
State methods for recognizing needs and goals of individual students.	S	BF
State methods for developing student-parent activities for industrial and education programs.	S/I	Co
Recognize potential problems of students.	I	IP/II/EA/ CG/CM
Demonstrate a knowledge of the purposes, services, and locations of national organizations concerned with the education or general welfare of exceptional children.	I/S	BF
Understand limitations of the handicapped and disadvantaged students.	I	BF
Identify current trends of the teaching profession.	I	BF
Show an awareness of the culture and society of the student.	G/I	BF
Determine and understand cross-cultural values of students.	I/G	BF

Krupp, Hritz, and Thrower Study (Contd.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u> IP/CG
Match a student-learner's unique characteristics with an appropriate learning program.	S	
Analyze enrollment trends to determine student and parent acceptance of the industrial education programs.	S	AS
Establish criteria for selection of students.	S/I	AS
Review student performance goals developed for the program plan.	S	EA
Propose specific action for resolution of learning and behavior problems.	S	IP
Develop Behavior Modification schedules for academic and industrial education learning experiences.	S	CG/CM
Describe techniques of relating to individuals in groups.	I	CG
Provide alternatives to frustration behavior.	S/I	CG
Be able to cope with student's psychic needs.	S	CG
Encourage students to discuss career aspirations.	S	CG
Develop high motivation in students towards achieving goals.	I	CG
State methods for encouraging students to discuss career aspirations.	S	CG
Assist graduates or seniors in preparing for interviews with potential employers.	S	CG
Provide information and resources to students on post- high school opportunities available to them.	S	CG
Assist students in determining ways to best describe their saleable skills.	S	CG
Arrange simulated school and work schedules with student-learners, faculty and training station personnel.	S	IP

Krupp, Hritz, and Thrower Study (Contd.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Develop a system to control the transfer of student-learners within the cooperative program and to other school programs.	S	AS
Plan the organization of facilities, materials, and services needed for individual and small group instruction.	I	AS/IP
Arrange layout of the laboratory to simulate occupational environment.	S	CM
Plan placement of a variety of leisure activities during school day.	S	IP
Simulate placement of consumable supplies for instructional purposes.	S	CM
Arrange the laboratory work areas and storage space to facilitate student work performance.	S	IP/CM
Plan for proper physical conditions in the classroom and laboratories.	I	CM
Establish a procedure for attending first aid needs of industrial education students.	S	CM
Develop a plan for involving students in cleaning and maintaining the laboratory and classroom.	S	CM
Establish a system for repairing and servicing tools and equipment in the laboratory.	S	CM

Krupp, Hritz, and Thrower Study (Contd.)

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Plan field trips.	I	IP
Use various techniques for describing behavior.	G/I	EA
Identify the unit topics for a course.	S	IP
Determine objectives for a unit.	S	IP
Write content outline for a unit of instruction.	S	IP
Plan esthetic experiences as part of units.	S	IP
Select methods of evaluating students' performance throughout a unit.	S	EA/IP
Provide parents with systematic and comprehensible evaluations of student progress.	S	CL
Demonstrate efficient methods of occupational placement and post-school follow-up.	I	Co
Develop positive attitudes toward employment, school and the role of the training instructor.	I	CG
Maintain knowledge of current programs available in vocational education.	S	CG
Identify personal, social, and academic competencies required for the performance of each occupational task included in a course.	I	IP

Taxonomic Classification of the Unique Competencies
from the Phelps, Evans, Abkas, and Frison Study

Competency	Level	Role Function
Administer or use diagnostic assessment techniques.	G	EA
Identify instructional techniques appropriate for special needs learners.	I	IP
Develop, coordinate, and evaluate a community relations program.	G	EA, PR
Identify instructional resource personnel (e.g., reading specialists and bilingualists) capable of providing supportive help for special needs learners.	I	IP
Establish and/or use program advisory committees.	I	IP
Analyze occupational/career clusters to determine relevant instructional content (competencies needed in the world of work).	S	IP
Identify the basic aptitudes and competencies (e.g., finger dexterity or sequencing skills) required for employment in a given career.	I	IP
Develop a rationale program goals, and philosophy for a special needs program.	I	AS
Collaborate with other educators, specialists, and parents in evaluating the learner's educational needs.	S	EA, CL
Consult with other teachers to facilitate adequate performance of students in classes outside of the career-oriented special program.	S	CL
Develop, utilize, and evaluate procedures for communicating with parents.	I	PR, EA
Provide career counseling and guidance.	G	CG
Provide work adjustment counseling.	I	CG
Provide personal counseling.	G	CG
Analyze local or regional job market and employment trends.	S	Co
Identify occupations and clusters of occupations.	S/I	Co

Competency	Level	Role Function
Manage and modify when necessary the tools, equipment, facilities, or conditions in the learning environment.	S	CM
Prepare alternative assessment procedures.	I	EA
Identify available assessment instruments appropriate for special needs students.	S	EA
Collect and use available assessment information.	I	EA, IP
Coordinate with instructional planning in academic areas for students with learning problems (reading, math, and other academic areas required for graduation).	I	IP
Use diagnostic and prescriptive assessment techniques for planning instruction.	S	IP
Design and implement a system for monitoring and feeding back student progress and achievement on a regular basis.	I	EA
Use a variety of community and governmental agency resources in the delivery of supportive services and instruction.	I	IP, CL, II
Plan and coordinate on-campus work (on-the-job) instruction.	G/I	Co
Plan and coordinate off-campus work (on-the-job) instruction.	G/I	Co
Identify a variety of community and governmental agency resources in planning instructional programs and services.	S	IP
Select or modify instructional materials appropriate for different special needs learners.	S	II, IP
Obtain follow-up information on special needs students leaving or graduating from school programs.	I	EA
Train employers and supervisors to work effectively with special needs learners.	I	Co
Plan a sequence of modules or units of instruction according to the learner's needs.	S	IP
Provide and/or coordinate job placement services for special needs learners.	I	Co

Phelps, Evans, Abkas, and Frison Study (cont.)

Competency	Level	Role Function
Analyze student's occupational interests and aptitudes.	I	EA
Develop and use screening-referral processes for identification of students.	S	EA
Develop and use simulated job application and interview procedures.	S	II, IP
Develop instruments and procedures appropriate for assessing the achievement of special needs learners.	I	EA
Develop instructional materials for special needs learners.	S/I	IP
Develop, use, and evaluate job samples designed to teach specific occupational skills.	I	II, EA, IP
Evaluate and upgrade the effectiveness of instruction.	I	II, EA, IP
Conduct a comprehensive evaluation of the total special needs program.	I	EA
Assess the affective performance of special needs learners.	I	EA
Assess the psychomotor/perceptual performance of special needs learners.	I	EA
Organize and use a "buddy system" for special needs learners.	S	IP, CM, II
Use instructional techniques that individualize instruction (e.g., peer instruction, small group instruction, or programmed instruction).	S	IP, II
Employ techniques or principles of special instruction (e.g., discrimination learning or cue redundancy).	I	IP, II
Identify and control problem behaviors in the classroom using behavioral management techniques.	I	CM
Provide reinforcement for learning.	I	II
Assess the cognitive performance of special needs learners.	I	EA

Taxonomic Classification of the Unique Competencies
from the Rosenberg Study

<u>Competency</u>	<u>Level</u>	<u>Role Function</u>
Obtain administrative approval for organizing and selecting the advisory committee.		Non C
Possess knowledge of basic evaluation terminology and statistical concepts relevant to the vocational evaluation process.	I/S	EA
Possess knowledge of vocational evaluation approaches including psychometric, behavioral, and situational methodologies.	S	EA
Skill in applying vocational test data to writing individualized vocational prescriptions for handicapped adolescents and adults including recommendations for achieving the vocational objectives.	I	IP
Skill in the administration, scoring, and interpretation of both formal and informal vocational evaluation instruments appropriate for handicapped adolescents and adults including the following:	G	EA
Instruments for pre-vocational evaluation including functional academic skills and social skills.		
Standardized fine-motor and dexterity tests.		
Standardized work samples relevant to business and industrial occupations.		
Standardized clerical aptitude tests.		
Standardized vocational interest tests.		
Standardized tests and informal observational instruments for evaluating general vocational competency and work habits.		

Taxonomic Classification of Competencies
Associated With More Than One Study

Competency Studies	Competency	Level	Role Function
Andreyka et.al. Handicapped; Griffin et. al.	Assist students in career planning	I/G	CG
Andreyka et.al. Ind. Arts; Griffin et.al.	Direct students in instructing other students	S	CM/II
Kruppa, et.al.; Griffin et.al.	Establish a policy for use of the physical facilities by outside groups and other school personnel	S	AS
Andreyka et.al. Handicapped; Griffin et.al.	Involve local and state agencies in identifying career opportunities for the handicapped student	I/S	IP/CL
Andreyka et.al. Handicapped; Griffin et.al.	Provide performance-based learning experiences for handicapped students	S	IP/II
Andreyka et.al. Handicapped; Griffin et.al.	Assist students in developing a sense of responsibility	S	CG
Andreyka et.al. Handicapped; Griffin et.al.	Assist students in developing the ability to manage time	S	CG
Andreyka et.al. Handicapped; Griffin et.al.	Assist students in becoming a productive member of the family	I	CG
Andreyka et.al. Handicapped; Griffin et.al.	Assist students in developing a social, physical, and emotional security	I	CG
K.S.U.; Griffin et.al.	Develop a presentation on program philosophy and goals	I	PR
K.S.U. Griffin et.al.	Identify requirements of local vocational programs	S	CG
Griffin et.al. Kruppa et.al.	Analyze student's cumulative record	S	EA
K.S.U.; Griffin et.al.	Establish student transportation procedures	S	AS
Andreyka et.al. Handicapped; Griffin et.al.	Supervise the safe arrangement of student work areas and stations	S	CM

Competency Studies	Competency	Level	Role Function
Andreyka et.al. Ind. Arts; Kruppa et.al.	Employ oral questioning techniques	S	II
Andreyka et.al. Handicapped; Griffin et.al.	Provide a variety of activities and experiences	I	CM/II
Andreyka et.al. Handicapped; Griffin et.al.	Use socially integrated learning activities for the handicapped	I	IP/II
Griffin et.al.; K.S.U.	Organize a weekly plan of instruction	S	IP
K.S.U.; Griffin et.al.	Inform students of scholarships and grants available	S	CG
K.S.U.; Griffin et.al.	Identify symptoms of drug abuse	S	CG
K.S.U.; Griffin et.al.	Locate help for drug related problems	S	CG
K.S.U.; Griffin et. al.	Develop value clarification strategies	I/S	CG
K.S.U.; Griffin et.al.	Direct students into alternative programs	S	CG
Andreyka et.al. Ind. Arts; Griffin et. al.	Direct students in applying problem-solving techniques	G/I	CG/II
Andreyka et.al. Ind. Arts; Andreyka, et.al. Handicapped	Stimulate learning through brainstorming and buzz group techniques	S	II
Andreyka, et.al. Ind. Arts; Andreyka, et.al. Handicapped	Direct individual and group field trips	S	II
Andreyka et.al. Handicapped; Griffin et.al.	Work cooperatively with community groups and agencies	G/I	Co/CL/PR
K.S.U.; Griffin, et.al.	Devise alternative methods of grading	I	EA
Griffin, et.al.; K.S.U.	Inform employers of their responsibilities	S	CL